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&lt;210&gt; 4802

&lt;211&gt; 377

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4802

Leu	Glu	Ile	Arg	Gly	Ser	Thr	Leu	Leu	Arg	Cys	Leu	Asp	Ser	Gly	Phe
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Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
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		85						90					95		
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
		100					105					110			
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
	115					120						125			
Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
	130				135						140				
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145				150					155					160	
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
		165						170						175	
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
	180						185					190			
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
	195					200						205			
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Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225				230					235					240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
		245					250						255		
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
	260						265						270		
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
	275					280						285			
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	290				295					300					
Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu

305		310		315		320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln						
	325		330		335	
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro						
	340		345		350	
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala						
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Gln Glu Ala Pro Pro Ile His Ser Ser						
370		375				

&lt;210&gt; 4803

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4803

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 gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc  
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&lt;210&gt; 4804

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4804

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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr									
	20		25		30				
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser									
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Ile Met Ser Tyr Ala									
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&lt;210&gt; 4805

&lt;211&gt; 1619



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4805

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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu  
 35 40 45  
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys  
 50 55 60  
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly  
 65 70 75 80  
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Gly Glu Ser Arg Phe Asp  
 85 90 95  
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn  
 100 105 110  
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu  
 115 120 125  
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala  
 130 135 140  
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn  
 145 150 155 160  
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val  
 165 170 175  
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro  
 180 185 190  
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly  
 195 200 205  
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu  
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 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp  
 225 230 235 240  
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro  
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 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys  
 260 265 270  
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe  
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 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe  
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 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro  
 305 310 315 320  
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 325 330 335  
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

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Glu	Leu	Phe	Asp	Leu	Asp	Glu	Thr	Phe	Ser	Ser	Glu	Lys	Ala	Arg	Leu
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Ala	Gln	Ile	Thr	Asn	Lys	Cys	Thr	Glu	Glu	Asp	Leu	Glu	Phe	Tyr	Val
	370					375					380				
Arg	Lys	Cys	Gly	Asp	Ile	Leu	Gly	Val	Thr	Ser	Lys	Leu	Pro	Lys	Asp
385					390					395					400
Gln	Gln	Asp	Ala	Lys	His	Ile	Leu	Glu	His	Val	Phe	Phe	Gln	Val	Val
			405						410					415	
Glu	Phe	Lys	Lys	Leu	Asn	Gln	Glu	His	Asp	Ile	Asp	Thr	Ser	Glu	Thr
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Ala	Phe	Gln	Asn	Asn	Phe										
	435														

&lt;210&gt; 4807

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4807

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1020

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 1140  
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 1177

<210> 4808  
 <211> 313  
 <212> PRT  
 <213> Homo sapiens

<400> 4808  
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 35 40 45  
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp  
 50 55 60  
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg  
 65 70 75 80  
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly  
 85 90 95  
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro  
 100 105 110  
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr  
 115 120 125  
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly  
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 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp  
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 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp  
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 Pro Gly Ile Val Gln Thr Glu Leu Leu Lys Glu His Met Ala Lys Glu  
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 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala  
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 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys  
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 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val  
 260 265 270  
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu  
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 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp  
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 Ile Ile Ala Leu Tyr Thr Ser Lys Phe  
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&lt;210&gt; 4809

&lt;211&gt; 999

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4809

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&lt;210&gt; 4810

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4810

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			20					25				30			
Ser	Gln	Pro	Gly	Cys	His	Ser	Gly	Leu	Leu	Thr	Asn	Thr	Pro	Ala	Ala
		35					40				45				
Leu	Val	Pro	Ala	His	Ala	Arg	Gln	Arg	Ser	Gln	Pro	Ser	Leu	Leu	Leu

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Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
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Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				80
	85		90	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				95
	100		105	
Leu Pro Ser Gly Gln Pro Cys Pro				110
	115		120	

&lt;210&gt; 4811

&lt;211&gt; 3207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4811

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1140

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2640  
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2760

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&lt;210&gt; 4812

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4812

Met Asp Met Ser Leu Asp Lys Ala Glu Ala Ala Leu Val Ala Lys Glu  
 1 5 10 15  
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 20 25 30  
 Lys Val Thr Leu Pro Asn Tyr Asp Asn Val Pro Gly Asn Leu Met Leu  
 35 40 45  
 Ser Ala Leu Gly Leu Arg Leu Gly Asp Arg Val Leu Leu Asp Gly Gln  
 50 55 60  
 Lys Thr Gly Thr Leu Arg Phe Cys Gly Thr Thr Glu Phe Ala Ser Gly  
 65 70 75 80  
 Ser Trp Val Gly Val Glu Leu Asp Glu Pro Glu Gly Lys Asn Asp Gly  
 85 90 95  
 Ser Val Gly Gly Val Arg Tyr Phe Ile Cys Pro Pro Lys Gln Gly Leu  
 100 105 110  
 Phe Ala Ser Val Ser Lys Ile Ser Lys Ala Val Asp Ala Pro Pro Ser  
 115 120 125  
 Ser Val Thr Ser Thr Pro Gly Pro Pro Arg Met Asp Phe Ser Arg Val  
 130 135 140  
 Thr Gly Lys Gly Arg Arg Glu His Lys Gly Lys Lys Thr Pro Ser  
 145 150 155 160  
 Ser Pro Ser Leu Gly Ser Leu Gln Gln Arg Asp Gly Ala Lys Ala Glu  
 165 170 175  
 Val Gly Asp Gln Val Leu Val Ala Gly Gln Lys Gln Gly Ile Val Arg  
 180 185 190  
 Phe Tyr Gly Lys Thr Asp Phe Ala Pro Gly Tyr Trp Tyr Gly Ile Glu  
 195 200 205  
 Leu Asp Gln Pro Thr Gly Lys His Asp Gly Ser Val Phe Gly Val Arg  
 210 215 220  
 Tyr Phe Thr Cys Pro Pro Arg His Gly Val Phe Ala Pro Ala Ser Arg  
 225 230 235 240  
 Ile Gln Arg Ile Gly Gly Ser Thr Asp Ser Pro Gly Asp Ser Val Gly



245 250 255  
 Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe  
 260 265 270  
 Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser  
 275 280 285  
 Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met  
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 Gln Ser  
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<210> 4813

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4813

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 aacacagatt tgaacattca cgaagaaact tccaggggtga gccaaaccct cttcctcccc  
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<210> 4814

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4814

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 Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile  
 35 40 45  
 Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly  
 50 55 60  
 Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Thr Thr Ala Ser Phe  
 65 70 75 80  
 Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys  
 85 90 95  
 Glu Thr Ala Ala Cys Ala Gly His Pro Gly Thr Ala Phe Ser Leu  
 100 105 110  
 Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala  
 115 120 125

<210> 4815  
 <211> 528  
 <212> DNA  
 <213> Homo sapiens

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 120  
 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg  
 180  
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa  
 240  
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc  
 300  
 acccatgcct cttacggacc cttctacctg gaatattcac tccttgaga atttaccttg  
 360  
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg  
 420  
 tagtttggag taatattcat acggcatgga cttaccaag atggcgatt taagtttaca  
 480  
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 528

<210> 4816  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 4816  
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 Glu Gly Glu Glu Lys Thr Leu Thr Gly Asp Val Lys Thr Ser Pro Pro  
 20 25 30  
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu  
 35 40 45  
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn  
 50 55 60  
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu  
 65 70 75 80  
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val  
 85 90 95  
 Gln Pro Ser Tyr Arg Ser Ala Leu Met  
 100 105

<210> 4817  
 <211> 1106  
 <212> DNA  
 <213> Homo sapiens

<400> 4817  
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 180  
 caggccgggc tcaacaaaa gctgaatatt attgttactg gcttacagga tattgacaag  
 240  
 tgcagacagc agcttcatga tattactgta ccgttagaag tttttgaata tatagatcaa  
 300  
 ggtcgaaatc cccagctcta caccaaagag tgcctggaga gggctctagc taaaaatgag  
 360  
 caagttaaag gcaagatcga caccatgaag aaatttaaaa gcctgttgat tcaagaactt  
 420  
 tctaaagtat ttccggaaga catggctaag tatcgaagca tccgggggga ggatcaccgc  
 480  
 ccttcttaac cagctcacc tccctgtgtg aagatcccc gggactgcca tgcggcgtga  
 540  
 ggctgggact gcgagtgtg acgccacctt cctgctgagg tgggactggg ccctggacac  
 600  
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 660  
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 720  
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 780  
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 960  
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 1080  
 aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1106

&lt;210&gt; 4818

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4818

Met	Ala	Glu	Lys	Phe	Asp	His	Leu	Glu	Glu	His	Leu	Glu	Lys	Phe	Val
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			20				25					30			
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
		35				40				45					
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50				55				60						
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65				70				75				80			
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

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<210> 4819
<211> 1655
<212> DNA
<213> Homo sapiens
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3996

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 1320  
 aactccgtgc agggctgcct catccgcaag tgcctcttcc gggacgggaa gggaggcgtc  
 1380  
 ttcgtctgct cccacggcag agccaagatg gaaggaaaca tcttccggaa cctgacttac  
 1440  
 gcagtgcggt gtatacataa tagcaagatc atcatgctca ggaacgacat ttaccgctgc  
 1500  
 cgagcgtcag gcattcttct tcgcttggag ggcggtggct tgattgccgg caacaacatt  
 1560  
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 1620  
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 1655

<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala
			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
			35					40					45		
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
			50			55					60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70					75				80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
				85						90				95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val
			115				120					125			
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
			130			135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
145					150					155				160	
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
				165					170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
			195				200					205			
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
			210			215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225					230					235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

245 250 255  
 Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val  
 260 265 270  
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr  
 275 280 285  
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp  
 290 295 300  
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp  
 305 310 315 320  
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr  
 325 330 335  
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln  
 340 345 350  
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp  
 355 360 365  
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp  
 370 375 380  
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val  
 385 390 395 400  
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln  
 405 410 415  
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys  
 420 425 430  
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile  
 435 440 445  
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser  
 450 455 460  
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr  
 465 470 475 480  
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp  
 485 490 495  
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly  
 500 505 510  
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val  
 515 520 525  
 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala  
 530 535 540  
 Glu Phe Leu Ala Ser Arg Ala  
 545 550

&lt;210&gt; 4821

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4821

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 180  
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 240

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 300  
 aagctcctgc acaaccgcag taacaacaag tactcctaca ccagcacttc agatgacaac  
 360  
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 420  
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 480  
 aaaatcgccg aggtgtgtg cacctccatt gtctatgcta cggagaagaa gcagaccaag  
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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

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Arg	Ser	Gly	Arg	His	Phe	Gly	Thr	Ile	Leu	Asn	Tyr	Leu	Arg	Asp	Gly
		20					25						30		
Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly
		35					40					45			
Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu
	50					55					60				
Ala	Leu	Gln	Gln	Lys	Arg	Glu	Thr	Leu	Ser	Pro	Leu	Cys	Leu	Ile	Pro
65				70					75					80	
Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser
			85					90						95	
Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
		100						105					110		
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
		115					120					125			
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp
		130				135						140			
Val	Leu	Gly	Asp	Glu	Ile	Cys	Cys	Trp	Ser	Phe	Tyr	Gly	Gln	Gly	Arg
145				150					155					160	
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
			165					170					175		
Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly
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Gly	Gly	His													
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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180  
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240  
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360  
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420  
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480  
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540  
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1560  
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1680



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 1860  
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 1920  
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 1980  
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 1984

<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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Lys	Ser	Thr	Gly	Ser	Lys	Lys	Ala	Asn	Arg	Phe	His	Pro	Tyr	Ser	Lys
		20						25					30		
Asp	Lys	Asn	Ser	Gly	Thr	Gly	Glu	Lys	Lys	Gly	Pro	Asn	Arg	Asn	Arg
		35					40					45			
Val	Phe	Ile	Ser	Asn	Ile	Pro	Tyr	Asp	Met	Lys	Trp	Gln	Ala	Ile	Lys
	50					55					60				
Asp	Leu	Met	Arg	Glu	Lys	Val	Gly	Glu	Val	Thr	Tyr	Val	Glu	Leu	Phe
65					70				75					80	
Lys	Asp	Ala	Glu	Gly	Lys	Ser	Arg	Gly	Cys	Gly	Val	Val	Glu	Phe	Lys
				85					90					95	
Asp	Glu	Glu	Phe	Val	Lys	Lys	Ala	Leu	Glu	Thr	Met	Asn	Lys	Tyr	Asp
		100						105					110		
Leu	Ser	Gly	Arg	Pro	Leu	Asn	Ile	Lys	Glu	Asp	Pro	Asp	Gly	Glu	Asn
		115					120					125			
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&lt;211&gt; 2380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4825

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<212> PRT

<213> Homo sapiens

<400> 4826

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<213> Homo sapiens

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Trp	Leu	Pro	Ser	Ser	Pro	Ala	Arg	Ser	Pro	Ser	Pro	Ala	Val	Pro	Leu							
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Arg	Val	Val	Pro	Thr	Leu	Ser	Thr	Thr	Asp	Met	Lys	Thr	Ala	Asp	Lys							
260								265				270										
Val	Glu	Leu	Gly	Asp	Ser	Asp	Leu	Lys	Ile	Met	Leu	Lys	Lys	His	His							
275								280				285										
Glu	Lys	Arg	Lys	His	Gln	Pro	Asp	His	Pro	Asp	Leu	Leu	Thr	Gly	Asp							
290								295				300										
Leu	Thr	Leu	Asn	Asp	Ile	Met	Thr	Arg	Val	Asn	Ala	Gly	Arg	Lys	Gly							
305								310				315				320						
Ser	Leu	Ala	Ala	Leu	Tyr	Asp	Leu	Ala	Val	Leu	Lys	Lys	Lys	Val	Lys							
				325								330				335						
Glu	Lys	Glu	Glu	Lys	Lys	Lys	Lys	Lys	Ile	Lys	Thr	Ile	Lys	Ser	Glu							
340								345				350										
Ala	Glu	Asp	Leu	Ala	Glu	Pro	Leu	Ser	Ser	Thr	Glu	Gly	Val	Ala	Pro							
355								360				365										
Leu	Ser	Gln	Ala	Pro	Ser	Pro	Leu	Ala	Ile	Pro	Ala	Ile	Lys	Glu	Glu							
370								375				380										
Pro	Leu	Glu	Asp	Leu	Lys	Pro	Cys	Leu	Gly	Ile	Asn	Glu	Ile	Ser	Ser							
385								390				395				400						
Ser	Phe	Phe	Ser	Leu	Leu	Leu	Glu	Ile	Leu	Leu	Glu	Ser	Gln	Ala								
				405								410				415						
Ser	Leu	Pro	Met	Leu	Glu	Glu	Arg	Val	Leu	Asp	Trp	Gln	Ser	Ser	Pro							
420								425				430										
Ala	Ser	Ser	Leu	Asn	Ser	Trp	Phe	Ser	Ala	Ala	Pro	Asn	Trp	Ala	Glu							
435								440				445										
Leu	Val	Leu	Pro	Ala	Leu	Gln	Tyr	Leu	Ala	Gly	Glu	Ser	Arg	Ala	Val							
450								455														

515 520 525  
 Thr Asp Tyr Val Val Arg Pro Ser Thr Gly Glu Glu Lys Arg Val Phe  
 530 535 540  
 Gln Glu Gln Glu Arg Tyr Arg Tyr Ser Gln Pro His Lys Ala Phe Thr  
 545 550 555 560  
 Phe Arg Met His Gly Phe Glu Ser Val Val Gly Pro Val Lys Gly Val  
 565 570 575  
 Phe Asp Lys Glu Thr Ser Leu Asn Lys Ala Arg Glu His Ser Leu Leu  
 580 585 590  
 Arg Ser Asp Arg Pro Ala Tyr Val Thr Ile Leu Ser Leu Val Arg Asp  
 595 600 605  
 Ala Ala Ala Arg Leu Pro Asn Gly Glu Gly Thr Arg Ala Glu Ile Cys  
 610 615 620  
 Glu Leu Leu Lys Asp Ser Gln Phe Leu Ala Pro Asp Val Thr Ser Thr  
 625 630 635 640  
 Gln Val Asn Thr Val Val Ser Gly Ala Leu Asp Arg Leu His Tyr Glu  
 645 650 655  
 Lys Asp Pro Cys Val Lys Tyr Asp Ile Gly Arg Lys Leu Trp Ile Tyr  
 660 665 670  
 Leu His Arg Asp Arg Ser Glu Glu Phe Glu Arg Ile His Gln Ala  
 675 680 685  
 Gln Ala Ala Ala Lys Ala Arg Lys Ala Leu Gln Gln Lys Pro Lys  
 690 695 700  
 Pro Pro Ser Lys Val Lys Ser Ser Ser Lys Glu Ser Ser Ile Lys Val  
 705 710 715 720  
 Leu Ser Ser Gly Pro Ser Glu Gln Ser Gln Met Ser Leu Ser Asp Ser  
 725 730 735  
 Ser Met Pro Pro Thr Pro Val Thr Pro Val Thr Pro Thr Thr Pro Ala  
 740 745 750  
 Leu Pro Ala Ile Pro Ile Ser Pro Pro Pro Val Ser Ala Val Asn Lys  
 755 760 765  
 Ser Gly Pro Ser Thr Val Ser Glu Pro Ala Lys Ser Ser Ser Gly Val  
 770 775 780  
 Leu Leu Val Ser Ser Pro Thr Met Pro His Leu Gly Thr Met Leu Ser  
 785 790 795 800  
 Pro Ala Ser Ser Gln Thr Ala Pro Ser Ser Gln Ala Ala Ala Arg Val  
 805 810 815  
 Val Ser His Ser Gly Ser Ala Gly Leu Ser Gln Val Arg Val Val Ala  
 820 825 830  
 Gln Pro Ser Leu Pro Ala Val Pro Gln Gln Ser Gly Gly Pro Ala Gln  
 835 840 845  
 Thr Leu Pro Gln Met Pro Ala Gly Pro Gln Ile Arg Val Pro Ala Thr  
 850 855 860  
 Ala Thr Gln Thr Lys Val Val Pro Gln Thr Val Met Ala Thr Val Pro  
 865 870 875 880  
 Val Lys Ala Gln Thr Thr Ala Ala Thr Val Gln Arg Pro Gly Pro Gly  
 885 890 895  
 Gln Thr Gly Leu Thr Val Thr Ser Leu Pro Ala Thr Ala Ser Pro Val  
 900 905 910  
 Ser Lys Pro Ala Thr Ser Ser Pro Gly Thr Ser Ala Pro Ser Ala Ser  
 915 920 925  
 Thr Ala Ala Val Ile Gln Asn Val Thr Gly Gln Asn Ile Ile Lys Gln  
 930 935 940  
 Val Ala Ile Thr Gly Gln Leu Gly Val Lys Pro Gln Thr Gly Asn Ser

```

945          950          955          960
Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
          965          970          975
Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
          980          985          990
Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
          995          1000          1005
Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
          1010          1015          1020
Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
          1025          1030          1035          1040
His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
          1045          1050          1055
Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
          1060          1065          1070
Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
          1075          1080          1085
Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
          1090          1095          1100
Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
          1105          1110          1115          1120
Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
          1125          1130          1135
Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
          1140          1145          1150
Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
          1155          1160          1165
Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
          1170          1175          1180
Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
          1185          1190          1195          1200
Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
          1205          1210          1215
Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
          1220          1225          1230
Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
          1235          1240          1245
Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
          1250          1255          1260
Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
          1265          1270          1275          1280
Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
          1285          1290          1295
Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
          1300          1305          1310
Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
          1315          1320

```

&lt;210&gt; 4829

&lt;211&gt; 1605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4829

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60  
ctggagacca tggccaaaat ggaggtgaaa acctcacttc tggacaatat gattggagtt  
120  
ggggatatgg ttcttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag  
180  
cgctttgacc acagtgaat atacacttac attggaagtg tggttatata tgtaacca  
240  
tatcggtctt taccattta ttcaccagag aaagtggaag aatacaggaa cagaaatttt  
300  
tatgaactga gccctcacat ctttgccctt tcggatgaag catacagatc cctacgagat  
360  
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc  
420  
agtaagcttg tcatgtccta tgtggcagct gtttgtggaa aaggagcaga agttaatcaa  
480  
gttaaagaac agcttttaca gtccaacccg gtcctggaag cttttggaaa tgccaaaact  
540  
gtaaggaatg acaactctc tagatttggc aaatatatgg atattgaatt tgactttaaa  
600  
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttgtaaa  
660  
cagccaagag gtgaaagaaa cttccatgtg ttctatcagc tgctctctgg tgctctgaa  
720  
gagctcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagctg  
780  
gattcgcca aagtgaatgg agtggatgat gcagcaaatt ttagaaccgt gcggaatgcc  
840  
atgcagattg tgggctttat ggatcatgaa gctgagctg tcttggcggt ggtggcagca  
900  
gtgttgaaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa  
960  
agcaaaatca aagataaaaa tgagttaaaa gaaatttgtg aattgaccgg cattgatcaa  
1020  
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagtttca  
1080  
actacactga atgtggctca ggcttattat gccctgatg ctctggctaa aaacctctac  
1140  
agcaggttgt tttcatggtt ggtaaatcga atcaatgaaa gcattaaggc acaaacaaaa  
1200  
gtgagaaaaga aggtcatggg tgttctggac atttatggct ttgagatttt cgaggacaac  
1260  
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa  
1320  
cttactctta aagaagagca ggaggagtat atacgggagg atatagaatg gactcacatt  
1380  
gactacttca ataatgctat catttctgac ctaatagaaa ataacacaaa tggaatcctg  
1440  
gccatgttgg atgaagagtg cctcagacct ggcacagtca ctgatgagac cttcttagaa  
1500  
aagctgaacc aagtatgtgc caccaccag cattttgaaa gcaggatgag caagtgtctt  
1560  
cggttcctca atgacacgtc tctgcctcac agctgcttca ggatc  
1605

<210> 4830  
 <211> 512  
 <212> PRT  
 <213> Homo sapiens

<400> 4830

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Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly
 1           5           10           15
Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
 20           25           30
Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35           40           45
Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50           55           60
Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65           70           75           80
Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85           90           95
Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
100           105           110
Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
115           120           125
Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
130           135           140
Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
145           150           155           160
Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
165           170           175
Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
180           185           190
Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
195           200           205
Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
210           215           220
Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
225           230           235           240
Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
245           250           255
Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
260           265           270
Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
275           280           285
Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
290           295           300
Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
305           310           315           320
Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
325           330           335
Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
340           345           350
Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
355           360           365
Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly
  
```

```

      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485      490      495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500      505      510

```

&lt;210&gt; 4831

&lt;211&gt; 578

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4831

```

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60
atgtgagct cagacttcag gccagcctg ccgctgcccc acttcaacaa gcacctgctg
120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acggcgccgg ccaagtgagg cccggagacc ccggcccgag gcgcccaggc ctgagcccca
360
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420
tcagttctgt gtcgtgttcg ggtttttct ctgtgactgg gccgtcttgg tgtctcgtgg
480
cacgcgtcac agtggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa
540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
578

```

&lt;210&gt; 4832

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4832

```

Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1      5      10      15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

```

	20		25		30										
Pro	His	Phe	Asn	Lys	His	Leu	Leu	Gly	Ala	Glu	His	Gly	Asp	Glu	Pro
	35					40						45			
Arg	His	Gly	Gly	Leu	Thr	Leu	Arg	Leu	Gly	Leu	His	Gln	Gln	Ser	Val
	50					55						60			
Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp
65					70					75				80	
Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser
			85						90					95	
Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys							
			100					105							

<210> 4833  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4833  
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 60  
 ctttgagaag gaactgagta ggcagtgaga agagtcgagt gaagcctggc ccgtgagtgc  
 120  
 ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct  
 180  
 gaactatatt ctgggttcca gaaaaggcag aggttcttac cgaaagcagg ggaggaagcc  
 240  
 gcagcccaag gaggtcgtca cttgccggga aggtggctcg ggccaggctg cactcaaaac  
 300  
 ccgtgctctg tccacactgc tacggggcca gagccaagga agcttccact ttttccccca  
 360  
 gacagcccca acagcggtta cccaaggag ccagcagcct tgtgtcctgg gatccccagc  
 420  
 ccctgcagaa tgaccacca ggatctgagc atcacagcca aactcatcaa tggagggtga  
 480  
 gcagggtctg tgggggtgac ctgctgttcc cccatcgact tggccaagac tcgcctgcag  
 540  
 aaccagcatg ggaaagccat gtacaaagga atgatcgact gcctgatgaa gacggctcgg  
 600  
 gcggagggtc ttttcggcat gtaccgaggg gctgcagtga acctcactct ggtcactcca  
 660  
 gagaaggcca tcaagctggc ggccaacgac tttttccggc ggctgctcat ggaagatggg  
 720  
 atgcagcgga acctgaagat ggagatgctt gccgggtgtg gggctgggat gtgccaggtc  
 780  
 gtggtgacct gtcccatgga aatgctcaag attcagctgc aggcattgctg gacgcctggc  
 840  
 cgtccatcat cagggtcctg cctcagcacc ct  
 872

<210> 4834  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4834

```

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

```

&lt;210&gt; 4835

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

```

nctcatttcc gaagtgcctt gacagccac cctgtgcgtg accctgtgca catgtaccag
60
ctgcacaaag ctttcgcccg agctgaactg gaacgcacgt accaggagat ccaggagtta
120
cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
cccgtgggta ttccagcacc atcccgcctg gcctcccgtt ttgagggtgt gcgctgggac
240
tacttcacgg agcagcacgc tttctcctgc gccgatggct caccgcgtg cccactgcgt
300
ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
360
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420
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480
ggaggccgcc ggcccctcac tcgccgagtg cagctgctcc ggccgctgag ccgctggag
540
atcttgctg tgccctatgt cactgaggcc tcacgtctca ctgtgctgct gcctctagct
600
gcggctgagc gtgacctggc ccctggcttc ttggaggcct ttgccactgc agcactggag
660
cctggtgatg ctgcggcagc cctgaccctg ctgctactgt atgagccgcg ccaggcccag
720
cgcgtggccc atgcagatgt cttcgcacct gtcaaggccc acgtggcaga gctggagcgg
780

```



cgtttccccg gtgccccggg gccatggctc agtgtgcaga cagccgcacc ctcaccactg  
 840  
 cgctcatgg atctactctc caagaagcac ccgctggaca cactgttctt gctggccggg  
 900  
 ccagacacgg tgctcacgcc tgacttctct aaccgctgcc gcatgcatgc catctccggc  
 960  
 tggcaggcct tctttcccat gcatttccaa gcottccacc cagctgtggc cccaccacaa  
 1020  
 gggcctgggc cccagagct ggggcctga cactggccgc tttgatcgcc aggcagccag  
 1080  
 cgaggcctgc ttctacaact ccgactacgt ggcagcccgt gggcgccctg gcgcagctca  
 1140  
 gaacaagaag aggagctgct ggagagcctg gatgtgtacg agctgttctt ccacttctcc  
 1200  
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 1260  
 tgcagcgca ggctcagtga ggacctgtac caccgctgcc tccagagcgt gcttgagggc  
 1320  
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 1380  
 tgacccacc ctgtcccgt gggccctgg cattggccac accccacccc acttctcccc  
 1440  
 caaaaaccaga gccacctgcc agcctcgtg ggcagggtg gccgtagcca gacccaagc  
 1500  
 tggccactg gtccctctc tggctctgtg ggtccctggg ctctggacaa gcactggggg  
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 1740  
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 1800  
 tggccaagtg tggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1846

&lt;210&gt; 4836

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4836

Xaa	His	Phe	Arg	Ser	Ala	Leu	Thr	Ala	His	Pro	Val	Arg	Asp	Pro	Val
1				5					10					15	
His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25					30		
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35					40					45			
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50					55					60				
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65					70					75				80	
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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<210> 4837
<211> 906
<212> DNA
<213> Homo sapiens
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4018

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 540  
 agagctctcc agcacaacac ggtgctcacg gagctgcgtt tccataacca gaggcacatc  
 600  
 atgggcagcc aggtggaaat ggagattgtc aagctgctga aggagaacac gacgctgctg  
 660  
 aggtgggat accattttga actcccagga ccaagaatga gcatgacgag cattttgaca  
 720  
 agaaatatgg ataaacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac  
 780  
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag cccttcccct  
 840  
 tatgtatctc ccaggcactc accgtgggtca tccccaaaac tcccctacgg agagacgaca  
 900  
 acgcgt  
 906

<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

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&lt;210&gt; 4839

&lt;211&gt; 1313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4839

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His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
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<213> Homo sapiens

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Asp Lys Val Thr Arg Ile Val Leu Leu Trp Val Asn Asn His Phe Asn
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Asp Phe Glu Gly Asp Pro Ala Met Thr Arg Phe Leu Glu Glu Phe Glu
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Lys Asn Leu Glu Asp Thr Lys Met Asn Gly His Leu Arg Leu Leu Asn
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Ala Ser Arg Glu Ser Pro Leu Gln Phe Ser Leu Asn Gly Gly Ser Glu

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&lt;210&gt; 4845

&lt;211&gt; 3286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4845

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&lt;210&gt; 4846

&lt;211&gt; 626

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4846

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			20					25					30		
Asn	Lys	Asp	Thr	Gly	His	Ser	Asn	Arg	Gln	Ser	Asp	Val	Arg	Ile	Lys
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Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
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Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
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Leu	Asp	Leu	His	Tyr	Met	Asn	Asn	Glu	Leu	Ser	Ile	Leu	Leu	Lys	Asn
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4033

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 Gly Arg Lys Ala Asp Val Trp Ser Leu Gly Cys Thr Val Val Glu Met  
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 Leu Thr Glu Lys Pro Pro Trp Ala Glu Tyr Glu Ala Met Ala Ala Ile  
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 Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg  
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&lt;210&gt; 4847

&lt;211&gt; 2804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4847

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 <212> PRT  
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 Val Asn Arg Glu Glu Val Ile Arg Glu Leu Ala Gly Ile Val Cys Thr  
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 Leu Asn Ser Glu Asn Lys Val Asp Leu Thr Asn Pro Gln Tyr Thr Val  
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 Val Val Glu Ile Ile Lys Ala Val Cys Cys Leu Ser Val Val Lys Asp  
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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
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Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90					95		
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
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Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
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Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
	130					135					140				
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
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<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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&lt;210&gt; 4854

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4854

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240

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&lt;210&gt; 4856

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4856

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		20						25					30		
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
		35				40						45			
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Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
		100					105					110			
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
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Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
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			165					170					175		
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Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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225

230

235

&lt;210&gt; 4857

&lt;211&gt; 2887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4857

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&lt;210&gt; 4858

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 <212> PRT  
 <213> Homo sapiens

<400> 4858

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 35           40           45
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Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
100           105           110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
115           120           125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
130           135           140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145           150           155           160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
165           170           175
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Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
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<400> 4859

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240

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&lt;210&gt; 4860

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4860

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4861

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1500  
ttagggaaga cgtatggtct gaatttatcc aggcagtggg tctgctttgg ttttctgtg  
1560  
aaatttatat cagtgtctgg gctcccaaga acataaatgt aattgccaaa gcaaaaaaaa  
1620  
aa  
1622

<210> 4862  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 4862  
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 1 5 10 15  
 Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His  
 20 25 30  
 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp  
 35 40 45  
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu  
 50 55 60  
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg  
 65 70 75 80  
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala  
 85 90 95  
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly  
 100 105 110  
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu  
 115 120 125  
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val  
 130 135 140  
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg  
 145 150 155 160  
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe  
 165 170 175  
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu  
 180 185 190  
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys  
 195 200 205  
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu  
 210 215 220  
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu  
 225 230 235 240  
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly  
 245 250 255  
 Thr Val Lys Gln  
 260

<210> 4863  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 4863  
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 60  
 gccccaata tcacagccaa cctcacctcg tcctgctga gcgtctgtgg gtggagccag  
 120  
 accatcaacc ctgaggacga cacggatcct ggccatgctg acctggctct ctatatcact  
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtgc ggggcgtcac ccagctgggc  
 240  
 ggggcctgct ccccaacctg gagctgcttc attaccgagg aacttggtt cgacctggga  
 300  
 gtcaccattg cccatgagat tgggcacagc ttcggcctgg agcacgacgg cgcgc  
 355

<210> 4864

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4864

Leu	Gly	Ala	His	Phe	Arg	Val	His	Leu	Val	Lys	Met	Val	Ile	Leu	Thr
1				5				10					15		
Glu	Pro	Glu	Gly	Ala	Pro	Asn	Ile	Thr	Ala	Asn	Leu	Thr	Ser	Ser	Leu
		20						25					30		
Leu	Ser	Val	Cys	Gly	Trp	Ser	Gln	Thr	Ile	Asn	Pro	Glu	Asp	Asp	Thr
		35					40					45			
Asp	Pro	Gly	His	Ala	Asp	Leu	Val	Leu	Tyr	Ile	Thr	Arg	Phe	Asp	Leu
		50				55					60				
Glu	Leu	Pro	Asp	Gly	Asn	Xaa	Ala	Val	Arg	Gly	Val	Thr	Gln	Leu	Gly
65					70					75				80	
Gly	Ala	Cys	Ser	Pro	Thr	Trp	Ser	Cys	Leu	Ile	Thr	Glu	Asp	Thr	Gly
			85						90					95	
Phe	Asp	Leu	Gly	Val	Thr	Ile	Ala	His	Glu	Ile	Gly	His	Ser	Phe	Gly
		100						105						110	
Leu	Glu	His	Asp	Gly	Ala										
		115													

<210> 4865

<211> 444

<212> DNA

<213> Homo sapiens

<400> 4865

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 120  
 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcactcactc tggccagaag  
 180  
 ccctacaagt gccacattg tggcaaggcc ttcggcgaca gctcctacct cctgcgacac  
 240  
 cagcgcaccc acagccacga gcggccctac agctgcaccg agtgcggaag gtgctatagc  
 300  
 cagaactcgt ccctgcgcag ccatcagagg gtgcacaccg gtcagaggcc cttcagctgt  
 360  
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 420  
 gcccgggaga agcccttcac gcgt  
 444

<210> 4866



<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 4866

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Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser
 1           5           10           15
Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg
      20           25           30
Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
      35           40           45
Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
      50           55           60
Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
      65           70           75           80
Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
      85           90           95
Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
      100          105          110
Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
      115          120          125
Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
      130          135          140
Pro Phe Thr Arg
145

```

<210> 4867  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 4867

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tatccttggt gggaggatga gaaggacaaa aagaggcaac cagcctaggg acatcggcct
120
ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagccca
180
gagacagccc cagggggtgc tgcctggaga cagccgggat agcttcagtc tcctgacct
240
gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa
300
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360
agcgctctac tcccatagct cccactgta t
391

```

<210> 4868  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 4868

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Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

```

```

      1           5           10           15
Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20           25           30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35           40           45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50           55           60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65           70           75           80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85           90           95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100          105          110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115          120          125

```

&lt;210&gt; 4869

&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4869

```

ccccggaaga gggtcgcccg ccataaatgc ggaaacagtt aaatggcgat gggaatagga
60
tggaactca atggtgttgc tacctttgga tggactcgga ggcagcccag cttcctggga
120
caggactgca cggactgcct ggggaggggt ctttggcccc ccggttcctg caggggggct
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcga tcctgttcct
240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgaggctgt tttcctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
360
agctctctgg gggaggagga ggaaaatgca attgattttc aggagccttc tgaggtcg
418

```

&lt;210&gt; 4870

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4870

```

Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
1           5           10           15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20           25           30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35           40           45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50           55           60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65           70           75           80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```

				85						90					95
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu
			100						105				110		
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val			
		115					120					125			

&lt;210&gt; 4871

&lt;211&gt; 1354

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4871

```

nntttttttt tttttttttt tttttctaga atccgcttta ttatggcacc tggtaggtct
60
ggtgggatct gagggaggaa gaggetgcag tcttgctggg cagccctctg gtcagtccag
120
cagccctca ggccatgctg ctgctcagct gcatggcaaa gtccctgcaca tgctccttca
180
gagtctggcg ggcatctgcc tgtgcccgtc tctcccgtgc ccgctcctgc tgcagcttgg
240
tcagtctcaa ccgcagccgc tgctcccgc gcttgccaggc ctgcagctgg cgctgggctc
300
tgtcaagggc atcaagggtc gcctggctcg ccgcttccag agtaaggcgc tgcccacctg
360
gtagctgtgt tcattctgga ttaggtctcc ggcgggtggg ggcaggcgag catatacgct
420
gagggggaga ctggccgtgg ttcgagaggg gagggctgcc gctctggtga aggctgggctg
480
ctgcagcctg cttcatctgc ctgggcaccc aaggggcccc gtaggtctga aaaggggctg
540
ctaaggccag gctccagcct ccagctggg gagggccgca aagtggcagg tgctgaggcc
600
tcttccacag gaaagcaggt gacatcagca ggtggaggtg gagaaaatgg agttgtgggc
660
cctcgccct cgagcagcg cttcctgcat cgtctaagcc ggctgacttc aggggggcca
720
ggtgggtaac tgtgtccttt ggtcttggtt gtccggcgca acttgagaga agactcaaag
780
atggtgggga ctgccccctc ctttagcctg tgatatccac tgattccac cagctcaaag
840
cagtcctcct caaagtgttt ggagcagaag tagatgtact cggatgccgg gtcccacagg
900
ccctggccgc tggggtccag ccgctggcag ttggccagcc acaagcctcg cctcgggttg
960
tccttcttgg gaagtctgtg gagccacaaa cccgtgagca ccaggctgtc cacagccctg
1020
ggctcatgct gcccagcac ccagagggg aaacgcagac ccaacacgcg ccgccacgag
1080
acctccctgc gaccccgccg ggtaagcacc accgcccggg cacagacgag gcaacggagg
1140
cctcgagaag aaaagcagtt tcctcagcgt catctggcag gtaacagagt ggggcgggtc
1200
caagccggct agacttcccg tcctcccctt cccgactgca ttcagtcccg ccgggaccgt
1260

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tccgcttcac ctcccaccca caggttcaag cctcctcagt atctgagaaa ggcggaagc  
 1320  
 ctctacgcag ttgcgacccg aggcgagcaa caac  
 1354

<210> 4872  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4872  
 Gly Arg Lys Arg Leu Gln Ser Cys Trp Ala Ala Pro Arg Ser Val Gln  
 1 5 10 15  
 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala  
 20 25 30  
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro  
 35 40 45  
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala  
 50 55 60  
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His  
 65 70 75 80  
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu  
 85 90

<210> 4873  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 4873  
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 agattgcctt gatagaggac tgatgttttt cactgatgag atggtgacca aaagccagcc  
 120  
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg  
 180  
 gaacacgacc tggccgatgt ggttcaaatt gcagtggaag acctgagccc tgaccaccca  
 240  
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa  
 300  
 cctgctttga aacgccagcg actagaaatc aattgccagg atccatctat aaagtcattc  
 360  
 ctgtattcca tcaaccagac aatctgcttg cggttggata gcattgaagc caaattgcaa  
 420  
 gccctggagg ctacttgtaa atccttagaa gaaaagctgg atctggtcac gaacaagcag  
 480  
 cacagcccca tccaggttcc catggtggcc ggctcccctc tcaggacaac ccagatgtgc  
 540  
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttggggaga  
 600  
 agcgcgctac ctctctgccc atgcccgcag cttagtggct cagtttgctg gagatgcgca  
 660  
 gtgtctgcct cagcagtctc agcagtttct aactaaagct gactttagtt agaccgaaac  
 720

cgaacacatg gcacccctgcc aggatgacct gaagtcaccc tcacctttcc tttccacata  
 780  
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacacg  
 840  
 tgcttctttc ctttttcccta ctctacctgg ctagtcttta gatatgtttt tcttcgtatg  
 900  
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

Met	Met	Ser	Glu	His	Asp	Leu	Ala	Asp	Val	Val	Gln	Ile	Ala	Val	Glu
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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55				60					
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70					75					80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85					90					95		
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100					105					110		
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
		115					120						125		

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 120  
 tggacgcagt tttagaaaga gcgttttcgc tacgtaaagc acattcgata aaggatatgg  
 180  
 aaaatacttt gcagctgggtg agaaatatca tacctcctct gtcttcaca aagcaciaag  
 240  
 ggcaagatgg aagaataggc gtagttggag gctgtcagga gtacactgga gcccattatt  
 300  
 ttgcagcaat ctcagctctc aaagtgggag cagacttgct ccacgtgttc tgtgccagtg  
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 420  
 gcccaaatgc tggtcatgag gtggagaagt ggctgccccg gctgcatgct cttgtcgtag  
 480

gacctggctt gggtagagat gatcggtccac ccagttcttg acagcccaa tgctgttcat  
 540  
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 660  
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 720  
 ggctaccgga aggtgtgct cactcccaac cacgtggagt tcagcagact gtatgacgct  
 780  
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 840  
 gccctgggca acgtgacggt ggtccagaaa ggagagcgcg acatcctctc caacggccag  
 900  
 caggtgcttg tgtgcagcca ggaaggcagc agccgcaggt gtggagggca aggggacctc  
 960  
 ctgtcgggct ccctgggcgt cctggtacac tgggcgctcc ttgctggacc acagaaaaca  
 1020  
 aatgggtcca gccctctcct ggtggccgcg tttgggcct gctctctcac caggcagtg  
 1080  
 aaccaccaag ccttcagaa gcacggtcgc tccaccacca cctccgacat gatcgccgag  
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 1200  
 ggcaccttg acgggggaga gcgtgtgtgt gatgggaaaa tccggacca cgcgt  
 1255

&lt;210&gt; 4876

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4876

Leu	Ala	Trp	Val	Glu	Met	Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn
1				5					10					15	
Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln	
		35					40					45			
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50					55				60					
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65					70					75				80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
			85					90						95	
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
		100					105						110		
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
		115				120						125			
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130					135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
145					150					155				160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

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<210> 4877
<211> 1182
<212> DNA
<213> Homo sapiens
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4055

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1182

<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

Met	Ala	Val	Ser	His	Ser	Val	Lys	Glu	Arg	Thr	Ile	Ser	Glu	Asn	Ser
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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20					25					30		
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
			35				40					45			
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
	50					55					60				
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
65				70					75					80	
Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
			85					90					95		
Gln	Leu	Gln	Ile	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln
			100					105					110		
Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
			115					120							

<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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120  
gctgggcttg gaggatgcct ctccgaccca ctgatgctgg gggcgagga ctcggtcaag  
180  
ggaggggcaa gaggaggagg agagcctgcc gttccaactt gccatcaga gaccggaca  
240  
cggcctggtg tgtggcttgc tgcctgggag ggatgcacag ggcctcctga gggacaggat  
300  
ggacctggtc agaggacggt tgctgtcctc atttgcttcc caagaagagc atgtcctccc  
360  
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420  
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480  
ccgtggtaga atgagctgga gcacgctcta agagagatgc ctgcttcccta aagatctaca  
540  
gcaatctggg acgtgggtta agttcaagac ttgaaggaag caaagacgcc ctgcatgggt  
600  
acaatggctc aggtgtcagg ggaggccgga ggttttccag catttgcctc atgccagcac  
660



ctttgaaccg gtctcttaga agaagacaca catcctgggt gtacagtggg gaaatgggga  
 720  
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 900  
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&lt;210&gt; 4880

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4880

Met	Val	Arg	Ser	Ala	His	His	Ser	Gly	Thr	Glu	Ala	Ser	Leu	Glu	Thr
1					5				10				15		
His	Lys	Pro	Gly	Leu	Gly	Lys	Cys	Pro	Asp	Leu	Pro	Gly	Gly	His	Thr

20 25 30  
 Ser Leu Ala Ala Ser Ala Gly His Ala Ala Ser Pro Val Leu Pro Ser  
 35 40 45  
 Ala Thr Ala Ser Gly Pro His Val Lys Ser His Leu Thr Arg Val Val  
 50 55 60  
 Thr Thr Val Leu Phe Trp Gly Phe Ser Lys Ala Ser Pro Val Val Leu  
 65 70 75 80  
 Arg Gly His Ser Glu Gln Ala Asn Thr Ala Arg Val Thr His Tyr Thr  
 85 90 95  
 Gln Arg Lys Asp Asn Glu Gln Met Ala Ile Val Glu Asn Ser Val Val  
 100 105 110  
 Cys Phe Ser Asn Ala Thr Tyr Phe Ser Arg Gln Val Ile Leu Pro Met  
 115 120 125  
 Met Thr Ser Ala Thr Lys Leu Arg Ala Arg Gly Leu Pro Met Arg Leu  
 130 135 140  
 Val Glu Ser Asn His Val Cys Ser Glu Ala Ser Gly Pro Ser Arg Pro  
 145 150 155 160  
 Cys His Arg Pro Glu His Arg Thr Val Ile Met Gln Arg Ala Val Thr  
 165 170 175  
 Glu Ala Gly Val Ser Val Gly Gly Gly Glu Glu Gly Thr Ser Ala Phe  
 180 185 190  
 Tyr Ile Arg Ser Glu Ala Thr Val Arg Lys  
 195 200

&lt;210&gt; 4881

&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4881

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 1333

<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50				55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70					75				80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
			85						90					95	
Leu	Ser	Gly	Arg												
			100												

<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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 120

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 180  
 caccttcggt tggtagaactt tcaacacaat ttataactc ggatacaaaa tatttcta  
 240  
 ctacagaagt taatatcggt ggatttatat gataaccaga ttgaagaaat tagtgggctt  
 300  
 tcgactctga gatgtcttcg tgccttctg ttggggaaaa acagaatcaa gaaaatctca  
 360  
 aatctggaga atctaaaaag cttagatgtc ttggatcttc atggaaatca gattaccaa  
 420  
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20						25				30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
		35					40					45			

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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
 65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
      100          105          110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
      115          120          125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
      130          135          140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
 145          150          155          160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165          170          175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
      180          185          190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
      195          200          205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
      210          215          220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
 225          230          235          240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
      245          250          255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
      260          265          270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
      275          280          285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
      290          295          300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
 305          310          315          320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
      325          330          335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
      340          345          350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
      355          360          365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
      370          375          380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
 385          390          395          400
Phe Asn Ala Leu Ala Gln Leu Arg Arg Tyr
      405          410

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&lt;210&gt; 4885

&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4885

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 180  
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 240  
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 300  
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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20					25					30		
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35					40					45			
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50					55					60				
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65					70					75					

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 120  
 acttcactgt agtttattat ccctgaccct ccacaatgtg attaccaacc gctaggatga  
 180  
 gttgcattctt attataaagt agcaaattac aagattgtaa cattagactt ttttaagaaaa  
 240  
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 300  
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cagcatctat ctctattaaa tgtagaggaa ttgacaaaag aggggaaaga aagttgttag  
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<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
		35					40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
	50					55					60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
			85						90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
		115					120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
	130						135				140				
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145					150					155				160	
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
			165						170					175	
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
		180						185					190		
His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
		195					200						205		
Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
	210					215					220				
Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
225					230					235				240	
Ala	Pro	Glu	Ser	Thr	Ser	Asp	Xaa	Phe	Pro	Xaa	Ala	Gly	Lys	Ser	Gln
			245						250					255	
Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
		260						265					270		
Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
		275					280					285			
Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	Ser	Arg	Tyr



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Tyr Leu Thr Asp Leu Gln Val Ser Leu Ile Arg Asp Ile Arg Arg Arg				
305		310		315
Gly Lys Asn Lys Val Ala Ala Gln Asn Cys Arg Lys Arg Lys Leu Asp				320
	325		330	335
Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys				
	340		345	350
Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile				
	355		360	365
Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu				
	370		375	380
Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln				
385		390		395
Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala				400
	405		410	415
Ser Gly His Lys Lys Glu Thr Gln Lys Gly Lys Arg Lys				
	420		425	

&lt;210&gt; 4889

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4889

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540

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&lt;210&gt; 4890

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4890

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Arg	Thr	Gly	Gln	Pro	Gln	Pro	Ala	Pro	Thr	Arg	Val	Asn	Ile	Ser	Arg
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Pro	Ser	Pro	Thr	Leu	Phe	Pro	Asp	Ser	Gln	Gln	Thr	Asp	Val	Gly	Ser
	50			55		60									
Arg	Thr	Asp	Pro	Phe	Thr	His	Thr	His	Thr	His	Ser	His	Ser	Phe	Ala
65				70		75								80	
His	Ile	His	Ser	Cys	Thr	His	Ala	Met	Tyr						
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&lt;210&gt; 4891

&lt;211&gt; 1998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4891

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 1998

&lt;210&gt; 4892

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo. sapiens

&lt;400&gt; 4892

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Ile	Lys	Arg	Gly	Arg	Gln	Ala	Glu	Glu	Glu	Cys	Ala	His	Arg	Gly	Ser
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Pro	Ile	Arg	Arg	Glu	Gly	Pro	Lys	Trp	Asp	Pro	Ala	Arg	Leu	Asn	Glu
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Ile Arg Asp Leu Ala Ala Ser Asp Asp Tyr Arg Gly Cys Leu Asp Leu		
165	170	175
Lys Leu Glu Glu Leu Lys Ser Phe Val Leu Pro Ser Trp Met Val Glu		
180	185	190
Lys Met Arg Lys Tyr Met Glu Thr Leu Arg Thr Glu Asn Glu His Arg		
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Ala Val Glu Ala Pro Pro Gln Thr		
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&lt;210&gt; 4893

&lt;211&gt; 5212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4893

```

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1020

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&lt;210&gt; 4894

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

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 Pro Ser Ala Arg Ala Arg Pro Arg His Lys Ser Leu Asn Ile Lys Asp  
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 65 70 75 80  
 Glu Arg Arg Ser Ser Asp Gly Val Arg Thr Gln Val Thr Glu Ala Lys  
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Ser Gly Ser Glu Val Ser Gln Arg Val His Pro Ser Asp Leu Glu Gly		
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Arg Glu Pro Thr Pro Glu Leu Val Glu Asp Arg Lys Gly Ser Cys Arg		
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Arg Pro Trp Asp Arg Ser Leu Glu Asn Val Tyr Arg Gly Ser Glu Gly		
245	250	255
Ser Pro Thr Lys Pro Phe Ile Asn Pro Leu Pro Lys Pro Arg Arg Thr		
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Phe Lys His Ala Gly Glu Gly Asp Lys Asp Gly Lys Pro Gly Ile Gly		
275	280	285
Phe Arg Lys Glu Lys Arg Asn Leu Pro Pro Leu Pro Ser Leu Pro Pro		
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Pro Pro Leu Pro Ser Ser Pro Pro Pro Ser Ser Val Asn Arg Arg Leu		
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Trp Thr Gly Arg Gln Lys Ser Ser Ala Asp His Arg Lys Ser Tyr Glu		
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Tyr Ala Gln Thr Lys Leu Gly Leu Thr Arg Thr Leu Ser Glu Glu Asn		
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Val Tyr Glu Asp Ile Leu Asp Pro Pro Met Lys Glu Asn Pro Tyr Glu		
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&lt;210&gt; 4895

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

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<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

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		20					25					30			
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65					70			75						80	
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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897

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1200  
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1560  
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1620

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 1733

<210> 4898  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 4898  
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 Gln Pro Leu Pro Leu Arg Phe Lys Gln Phe Ser Cys Phe Ser Leu Pro  
 20 25 30  
 Ser Ser Trp Asp Tyr Arg Arg Pro Pro Arg Cys Pro Ala Asn Phe Cys  
 35 40 45  
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln  
 50 55 60  
 Thr Pro Asp Xaa Thr Arg Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg  
 65 70 75 80  
 Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe  
 85 90

<210> 4899  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 4899  
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 180  
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 240  
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 444

<210> 4900  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4900  
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Ser Lys Pro Gln Gln Leu Trp Arg Arg Val Arg Glu Trp Arg Leu Trp			
	20	25	30
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
	35	40	45
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
	50	55	60
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
65	70	75	80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
	85	90	95
Val Leu Thr Lys Glu Ala Leu Gly Val Ala Val Pro Ala Pro Met Gly			
	100	105	110
Leu Leu Leu Gly Arg Gly			
	115		

&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

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ncgggagtcg cggcgctgcg ggtaggagcc gggttgcggg agaccccagg ttcggttggg
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attcccagcc agaacggagc ttaagccggg caggcgatgc gaatgacgga gtagcgagct
120
gcacggcggc gtgctgcgct gttgaggacg ctgtcccgcg cgctcccagg ccgccccgag
180
gcttggggtc ttcgaaggat aatcggcgcc cggggccgaa cagcgggggc acacggggcg
240
ctgccgaagt gcaaggccac ggccagagct cgagcccagc gcgctgtctg gtagctgtagg
300
ttggcgccgt ttggggtcgg ggtctgaggc ttgggcgctg cctgggcccga gcggagatcg
360
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420
agcgggcagc gcgtggacgt caaggtggtg atgctgggca aggagtacgt gggcaagact
480
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540
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600
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660
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720
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780
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840
tatgcagaca gtagctgctc ctcagccctt tggggggtgg ggggtgtgtgg ctgtctgggt
900
ggatcaaaga aaataggagc tgccttggtt gccagggcaa ggtgctctag gaggtcttcc
960

```

tggcctcctt gaactgtggg gtccaggaga ctccctgaac tgctagccct cccttttgtc  
 1020  
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 1080  
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 1140  
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 1380  
 tcactgagtc agcactcacc tggcctgggg gaattaaagg aattccccgt aagcgtggac  
 1440  
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 1500  
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 1520

&lt;210&gt; 4902

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4902

Met Ser Gly Gln Arg Val Asp Val Lys Val Val Met Leu Gly Lys Glu  
 1 5 10 15  
 Tyr Val Gly Lys Thr Ser Leu Val Glu Arg Tyr Val His Asp Arg Phe  
 20 25 30  
 Leu Val Gly Pro Tyr Gln Asn Thr Ile Gly Ala Ala Phe Val Ala Lys  
 35 40 45  
 Val Met Ser Val Gly Asp Arg Thr Val Thr Leu Gly Ile Trp Asp Thr  
 50 55 60  
 Ala Gly Ser Glu Arg Tyr Glu Ala Met Ser Arg Ile Tyr Tyr Arg Gly  
 65 70 75 80  
 Ala Lys Ala Ala Ile Val Cys Tyr Asp Leu Thr Asp Ser Ser Ser Phe  
 85 90 95  
 Glu Arg Ala Lys Phe Trp Val Lys Glu Leu Arg Ser Leu Glu Glu Gly  
 100 105 110  
 Cys Gln Ile Tyr Leu Cys Gly Thr Lys Ser Asp Leu Leu Glu Glu Asp  
 115 120 125  
 Arg Arg Arg Arg Arg Val Asp Phe His Asp Val Gln Asp Tyr Ala Asp  
 130 135 140  
 Ser Ser Cys Ser Ser Ala Leu Trp Gly Val Gly Val Cys Gly Cys Leu  
 145 150 155 160  
 Gly Gly Ser Lys Lys Ile Gly Thr Ala Leu Ala Ala Arg Ala Arg Cys  
 165 170 175  
 Ser Arg Arg Ser Ser Trp Pro Pro  
 180

&lt;210&gt; 4903

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

```

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cttcggaaag tctcatccac cccacatcg cctctttagg aagtcactta atgttgggct
120
tcattattcc cacatccctt tccttactac ttgcctgcac ttcttgagaa aaagactgca
180
gaaaggagag gtgggggcttt cagtagaaac aagcaaaccg cagtccctgt ggggggactc
240
tccaggaaga aggttccgca agaaccgtgg gcgacagtta tggagaagcg tctgcaggag
300
gctcagctgt acaaggagga agggaaccag cgctaccggg aagggaagta ccgagatgct
360
gtgagtaggt accatcgagc tctgcttcag ctgcggggtc tggatccgna gtctgccctc
420
tccgttacct aatctcggac ctcagggccc nggccctcac gcctgnaaca agaaaacata
480
ttgcatacca cccagacaga ctgctataac aatctagctg cttgtctcct tcagatggag
540
cccgtgaact acgaacgagt gagagaatat agtcagaaag tcttggaacg acagcctgat
600
aatgccaagg ccttgtatcg ggccggagtg gcctttttcc atctgcagga ctatgaccag
660
gcccgccact acctcctggc tgccgtgaat aggcagccta aagatgccaa cgtccggcgg
720
tacctccagc tgacacagtc agaactcagc agctaccata gaaaagagaa gcagctctac
780
ctgggcatgt ttggttaaca aagaagaaag atgctcctcc agttgaactt aggtggacca
840
ttaaacatgc atgaaggaga aatctgagcc tcagcaagag aaattaaccc tatacctctg
900
accaggtgg atttttgttt ctagttctgc acaaacttca ctacttagac agtctgagtc
960
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1020
atgttgcttg agaaatataa tcagaaaaca taaaaaaaaa aaaa
1064

```

&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

```

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala
1           5           10           15
Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg
20           25           30
Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
35           40           45
Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

```

```

      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

```

<210> 4905  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

```

<400> 4905
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120
tgcccgccgg tccagcgagg gtggcacgaa caggaggcct gccctgggc acagcacgct
180
taggggcagc gactgtgtct ggcagcgga cggcgggga catgggctgg gtgtgccgag
240
aactggagg acctcgacct ctctacaac aacctcgagc agctgccctg ggaggccctg
300
ggccgcctgg gcaacgtcaa cacgttgggc ctgcaccaca acctgctggc ttctgtgccc
360
gccggcgctt tttcccgctt gcacaagctg gcccggtgg acatgacctc caaccgctg
420
accacaatcc caccgcagcc actcttctcc cgcctgcccc tgetcgccag gccccggggc
480
tcgcccgcct ctgccctggt gctggccttt ggcgggaacc cctgcactg caactgcgag
540
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600
gctctggggc gccgc
615

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<210> 4906  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

```

<400> 4906
Gly Gln Arg Leu Cys Leu Ala Ala Ala Ala Gly Thr Trp Ala Gly
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20      25      30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35      40      45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50      55      60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
      65      70      75      80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

```

```

<400> 4907
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ccctgatatt acctcttttt cctcattttt tatactacct tttaaaataa agcagggaat
120
gtggccagca gctgggtcccg tctcttctgc cccaacagct gtatccacag gttgtgaggg
180
gggaacgact gttctgtaac ccctacaacg gagcctggca ggaaggaaat cacctaaaaa
240
agaaactgtc agagagattt aatagtcaca tggtatcatt aggagttggg tactgtgtca
300
cattcatgct tttagctaaa cactttaaga ttcaatatta ctttttttct ctctctgaa
360
atgtgtccgg tgaagatgtc ccactaagggt aagtttgaca tgggtgtaagg gaggtgaaag
420
gggtaaacgc ggataaagag cagattactt gaccctacat ttaagagaa gacgacgcct
480
tccggggcgca cgccgagcag aactccaccg acaccttatt cttgtccaca tggagacaga
540
ctctctccgc cgagtcgtcc tcttccagca ggtcctgctt ctgctttccc accggcagag
600
cgtagtcgtg gtcaccggcg ggcgagtctc tgaagagcga ggtgggtcagc cgcagtccca
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720
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1200

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 1320  
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 1560  
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 1620  
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 1680  
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 1740  
 accgcgcc  
 1748

&lt;210&gt; 4908

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4908

Glu	Lys	Thr	Thr	Pro	Ser	Gly	Arg	Thr	Pro	Ser	Arg	Thr	Pro	Pro	Thr
1				5				10					15		
Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20					25					30		
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
			35					40					45		
Gly	His	Arg	Arg	Ala	Ser	Leu									
			50				55								

&lt;210&gt; 4909

&lt;211&gt; 1960

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4909

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 120  
 cgcggtctcc cgaaccggaa gtggaggtga gctgtcgcgg gcggcgcccg gccttgtcta  
 180  
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 240  
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 300  
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960  
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1800  
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1920  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1960

<210> 4910  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens

<400> 4910

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Met Ser Ala Ser Ala Val Tyr Val Leu Asp Leu Lys Gly Lys Val Leu
 1              5              10              15
Ile Cys Arg Asn Tyr Arg Gly Asp Val Asp Met Ser Glu Val Glu His
              20              25              30
Phe Met Pro Ile Leu Met Glu Lys Glu Glu Glu Gly Met Leu Ser Pro
 35              40              45
Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50              55              60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65              70              75              80
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
              85              90              95
Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
              100              105              110
Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
 115              120              125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
 130              135              140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
 145              150              155              160
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
              165              170              175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
              180              185              190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
 195              200              205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
 210              215              220
Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
 225              230              235              240
Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
              245              250              255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
              260              265              270
Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
 275              280              285
Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
 290              295              300
Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
 305              310              315              320
Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
              325              330              335
Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
              340              345              350
Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
              355              360              365
Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

```

370		375		380
Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys				
385		390		395
Ser Gly Tyr Gln Ala Leu Pro Trp Val Arg Tyr Ile Thr Gln Ser Gly				400
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Asp Tyr Gln Leu Arg Thr Ser				
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<210> 4911  
 <211> 1862  
 <212> DNA  
 <213> Homo sapiens

<400> 4911  
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 atgtagtac agccaagaag gatattttga agtttgaaat gatccctata taaatagaac  
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 ggatcagcat aactttggga taaaattagc cgacagtttg tggactctcc agcatgcgcc  
 240  
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 420  
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 600  
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 660  
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 720  
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 780  
 tggagagtga cacaagtcaa ccacatgtta ggaaattccc tggatcaatga agtggaaat  
 840  
 gtgacacaag tcaaccacat gttaggaaat tccctggtca atgaagtggg acatggggcg  
 900  
 aatgtgaaca tgaagaccaa caaccaagat gaggagacgc cttgcacac ggctgcccac  
 960  
 ttcggccttt cggagctggt ggccttctac gtggaacacg gggccatagt ggacagcgtg  
 1020  
 aatgccaca tggagacccc cctggccatc gccgcctact gggccctccg cttaaggagg  
 1080  
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 1140  
 gtcaatgccc gagatgacga ctttaaactc cccctccaca aggcagcctg gaactgtgac  
 1200

cacgtgctca tgcacatgat gctggaagct ggcgccgaag ccaatctcat ggatatcaac  
 1260  
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 1320  
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 1380  
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 1740  
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 tt  
 1862

&lt;210&gt; 4912

&lt;211&gt; 453

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4912

Met	Asp	Gly	Thr	Thr	Ala	Pro	Val	Thr	Lys	Ser	Gly	Ala	Ala	Lys	Leu
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Val	Lys	Arg	Asn	Phe	Leu	Glu	Ala	Leu	Lys	Ser	Asn	Asp	Phe	Gly	Lys
		20						25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40						45			
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
	50				55					60					
Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
65				70						75				80	
Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
			85					90					95		
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
		100						105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
		115					120					125			
Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
	130					135					140				
His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
145				150						155				160	
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
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Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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180
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240
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300
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360
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ccggcccccg cgcgcgggcc tcgcaccccc aatctcaacc ccaacccccct catcaacgtg  
420  
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480  
ccgcccgcct tccgccgtct ctctgagttc ttctgtctgc tcaaggccct gtttgtgtc  
540  
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600  
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660  
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720  
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780  
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840  
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1920  
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1980

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<210> 4914  
 <211> 529  
 <212> PRT  
 <213> Homo sapiens

<400> 4914

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			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
		35					40					45			
Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
	50					55					60				
Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
65					70					75					80
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
				85					90					95	
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
			100					105					110		
Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
		115					120					125			
Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
		130				135					140				
Gly	Ser	Asn	Leu	Asp	Met	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Leu	Thr	Met
145					150					155					160
Glu	Met	Phe	Gly	Asn	Ser	Ser	Ile	Lys	Phe	Glu	Leu	Asp	Ile	Glu	Pro
				165					170					175	
Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
			180					185						190	
Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
		195					200					205			
Tyr	Ile	Val	Glu	Tyr	Ser	Leu	Glu	Tyr	Gly	Phe	Leu	Arg	Leu	Ser	Gln
	210					215					220				
Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro	Val	Met	Val	Val	Thr	Leu	Asp
225					230					235					240
Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp	Arg	Phe	Ser	Arg	Leu	Leu	Leu
				245					250					255	
Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile	Leu	Met	Ser	Ser	Val	Lys	Gly
			260					265					270		
Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly	Phe	Leu	Arg	Asn	Val	Val	Ser
		275					280					285			
Gly	Glu	His	Tyr	Arg	Phe	Val	Ser	Met	Trp	Met	Ala	Arg	Thr	Ser	Tyr
	290					295					300				
Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
305					310					315					320
Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
				325					330					335	
Leu	Gln	Met	Leu	Glu	Met	Asn	Met	Ala	Ile	Ala	Phe	Pro	Ala	Ala	Pro



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<210> 4915
<211> 1157
<212> DNA
<213> Homo sapiens
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120
tctcagtcac caagactgca ggagaggcaa ggccatgtca ggccctggcag ctgtggctgg
180
ggccaggagg gagggaccag gcccatgtgg gaacaggaca aatgccaag gccacatcct
240
tcgtccacag tcctgaggct cctgccaggc tgacaggaaa cagcccagag ctgagggtctt
300
tgagccggtc attccaacat tgcaagcacc acccagtcct cctggctgaa gttgagtga
360
gtaagaaggg ccggtggcca gggacaggga gggccctcag gaggctccca gggctgctgc
420
tgaggccggg cagcgtccta ggcctcaagg aactccttt ctcccgcgtg cccaagcca
480
ccatggcagc agcatcaggg ctgtgccgcc tcatcccat ccctgtctgg gcagatgtga
540
agggtgaccg tctccccac tgtccgaag ttgacggctc gggtggaag ctctgtggtg
600
aagctgctct ggccactgtc cgcagaacgc cggatgcggg tgcaaaaga ctgcgtccag
660

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ggagcactgc ccacaggccg agccggggcc tcccgaaga ggaaggaggt gccctcaagg  
 720  
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 780  
 gggcctcggg gaccagtgac agccccacgc tgagcagcac aggctgcccc accgtggggc  
 840  
 cccgatctc tctctggatc accgagacct cgcaggagg gtcacaggg gcgccaggcc  
 900  
 cagggccacc acagtggaag gtctcccctt cccaggcac gtaatcttcc aggtcagcca  
 960  
 gtgtcagcat gcggccgttg tgcgtgagga tcttggggtc acgatcccca aggtgtgtg  
 1020  
 tgtcctggga ctctcctgc acaaagagag tctcctctt cccctcttc ctagtccgc  
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 1157

<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
			35				40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
			50				55								

<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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 120  
 cagtctgggc gcgagagccg ccaagcgccc actccgttcc tcttgggtgc ccgccccgtc  
 180  
 cgcccgcggc cccgcccctc ccggcgcccc gccccgtccg gcagcggcct cgctccctcc  
 240  
 gatccccccc gcgcccggga cccctggccc cactgttggg ccagctcgcc gggtcgggac  
 300  
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 360  
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 420

gccgcggcgg acggcagcga gccggcgggc ggggcggggc ggggcggagc ccgcgccgtg  
 480  
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 660  
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 720  
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 1380  
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 1544

&lt;210&gt; 4918

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4918

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 Pro Pro Pro Pro Ser Pro Leu Leu Leu Leu Pro Leu Leu Pro Leu  
 20 25 30  
 Trp Leu Gly Leu Ala Gly Pro Gly Ala Ala Ala Asp Gly Ser Glu Pro  
 35 40 45  
 Ala Ala Gly Ala Gly Arg Gly Gly Ala Arg Ala Val Arg Val Asp Val  
 50 55 60  
 Arg Leu Pro Arg Gln Asp Ala Leu Val Leu Glu Gly Val Arg Ile Gly

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65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
          85          90          95
Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
          145          150          155          160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235          240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315          320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
          325          330          335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
          340          345

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&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

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120
gggcttcctc tcatgggggc aggcataagc ctgaccaagg tgccagctat tcaacagaaa
180
agaacggtgg cttttctaaa ccaatttgtg gtgcacactg tacagttcct caaccgcttt
240
tctacagttt gtgaggagaa actggcagac ctttcacttc gtatccaaca aattgaaaca
300
actctcaata ttttagatgc aaagtgtgca tctatcccag gcttagatga tgtcacagtt
360

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gaagtatctc ctttaaatgt caccagtgtc acaaatggag cacatcctga agccacttca  
 420  
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 480  
 gaaaatatct taactgtagc caaggatcca agatatgcca gatattctcaa aatgggttcaa  
 540  
 gtgggtgtac cagtgtggc aataagaaac aaaatgatat cagaaggact agaccagat  
 600  
 cttcttgaga ggccagatgc tccagtgcct gatggcgaaa gtgagaaaac tgtagaagaa  
 660  
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 720  
 catgcatagg ggtacattta cattctgtaa gagattgagc ctgaactctc ttagtcataa  
 780  
 aaacatcaaa tggccacatg tccactacca agcttcttct atgttaaaaa aataataata  
 840  
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 900  
 ttnggatacc ctaaataaag taccaattag tgctccaaat actaagatag aatattttag  
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 1140  
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 1200  
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 tggcgacaag agtgaaactc tgtcttaaaa ataaaaagag atgcaatgag caatttttaa  
 1320  
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 1362

&lt;210&gt; 4920

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4920

Met Asp Glu Asp Gly Leu Pro Leu Met Gly Ser Gly Ile Asp Leu Thr  
 1 5 10 15  
 Lys Val Pro Ala Ile Gln Gln Lys Arg Thr Val Ala Phe Leu Asn Gln  
 20 25 30  
 Phe Val Val His Thr Val Gln Phe Leu Asn Arg Phe Ser Thr Val Cys  
 35 40 45  
 Glu Glu Lys Leu Ala Asp Leu Ser Leu Arg Ile Gln Gln Ile Glu Thr  
 50 55 60  
 Thr Leu Asn Ile Leu Asp Ala Lys Leu Ser Ser Ile Pro Gly Leu Asp  
 65 70 75 80  
 Asp Val Thr Val Glu Val Ser Pro Leu Asn Val Thr Ser Val Thr Asn  
 85 90 95  
 Gly Ala His Pro Glu Ala Thr Ser Glu Gln Pro Gln Gln Asn Ser Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115				120							125			
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130				135						140				
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145				150					155					160	
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
			165					170					175		
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
		180					185					190			
Ser	Asp														

&lt;210&gt; 4921

&lt;211&gt; 1272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

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120
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180
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240
tttgtggaac agaatgtga agtttttgat gatgaagaag aaagcaaatt gacctataca
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420
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480
atgatggtcc agaaaaacat tgaaatgcag ctgcaagcca ttcgaataat tcaagagaga
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gaagagatga aaatcctgag ggaagttctt agaaaatcaa aagaggaata tgaccaggaa
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gaagaaagga agaggaaaaa acagttatca gaggctaaaa cagaagagcc cacagtgcac
720
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gaaaggtctg aaacttcctc cctcccacaa aaaggcctga agattcctgg cttagagcat
900
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960
cgagaacact atctcaagca gaagagagat aagttgatgt ccatgagaaa ggatatgagg
1020

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 1140  
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<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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Ala	Gly	Leu	Leu	Arg	Gly	Pro	Asp	Trp	Ser	Ile	Pro	Ile	Leu	Asp	Phe	20	25	30	
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu	35	40	45	
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys	Leu	50	55	60	
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe	Gln	65	70	75	80
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala	Ile	85	90	95	
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala	Met	100	105	110	
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile	Ile	115	120	125	
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser	Asp	130	135	140	
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu	Val	145	150	155	160
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg	165	170	175	
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His	Ser	180	185	190	
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His	Phe	195	200	205	
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser	Ile	210	215	220	
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu	Pro	225	230	235	240
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu	Gly	245	250	255	
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln	Arg	260	265	270	
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg	Lys	275	280	285	
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro				

290		295		300
Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu				
305		310		315
Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys				
	325		330	335
Glu Glu Val Ile Asn Lys				
340				

<210> 4923  
 <211> 765  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tccaagtcgt cctcatccgt cccctcctcc tcatcctcat ccgggtctct catgcacagg  
 180  
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 300  
 ccgtcctcag ggatcatcag gccatctggg gagaggtaa ccagcaggcc cagctggcgg  
 360  
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 420  
 ctggatgccc ggaccacctg cccccaagcc cggccttgcc ctgccccttc cccgggtctt  
 480  
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 600  
 gccgcacctn ggagcgcggc cagctgggct cgcagaggtc tgccgagccg aaactacaac  
 660  
 tcccggcaga tttctcaagg ggaagataaa atgactaaga ggaagaagct gcggacctca  
 720  
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<210> 4924  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

<400> 4924  
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 Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser  
 20 25 30  
 Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Ser Val Pro  
 35 40 45  
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe



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      50      55      60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg
65      70      75      80
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser
      85      90      95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg
      100      105      110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly
      115      120      125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg
      130      135      140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser
145      150      155      160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala
      165      170      175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro
      180      185      190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser
      195      200      205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile
      210      215      220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser
225      230      235      240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val
      245      250      255

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<210> 4925  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

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120
agtgatgagg ccgaggacgc tgagctctat gatgaccttt actgccacgc atgtgacaaa
180
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240
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360
ctttctaaaa aaaa
374

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<210> 4926  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 4926
Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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1		5		10		15									
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		20		25		30									
Lys	Asp	Glu	Asp	Gly	Lys	Asp	Ser	Asp	Glu	Ala	Glu	Asp	Ala	Glu	
		35		40		45									
Leu	Tyr	Asp	Asp	Leu	Tyr	Cys	Pro	Ala	Cys	Asp	Lys	Ser	Phe	Lys	Thr
		50		55		60									
Glu	Lys	Ala	Met	Lys	Asn	His	Glu	Lys	Ser	Lys	Lys	His	Arg	Glu	Met
65				70		75								80	
Val	Ala	Leu	Leu	Lys	Gln	Gln	Leu	Glu	Glu	Glu	Glu	Glu	Asn	Phe	Ser
				85		90								95	
Arg	Pro	Gln	Ile	Asp	Glu	Asn	Pro	Leu	Asp	Asp	Asn	Ser	Glu	Glu	Glu
		100				105							110		
Met	Glu	Asp	Ala	Pro	Lys	Gln	Lys	Leu	Ser	Lys	Lys				
		115				120									

&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

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 120  
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 180  
 aatgagaatg tcagtctcgt gatctcgagg cagttgctga ctgatttttg cacacatctt  
 240  
 cctaacttgc ctgatagcac agccaaagaa atctatcact tcaccttgga aaagatccag  
 300  
 cctagagtca tttcatttga ggagcagggt gcttcataa gacagcatct tgcattctata  
 360  
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 420  
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 480  
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 540  
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 600  
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 660  
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 720  
 atcttagcat cagcaggaca gcagcgttct cggatgctgg ctaccctttt taaggatgaa  
 780  
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 900  
 gctgatgggt ccagcatctt ggacagagct gttattgaac acaatttggt gtctgcaagc  
 960

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 1020  
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 1080  
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 1200  
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 1260  
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 1320  
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 1440  
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 1620  
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 1649

&lt;210&gt; 4928

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4928

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 20 25 30  
 Ile Gln Leu Ser Gly Ala Glu Gln Leu Glu Ala Leu Lys Ala Phe Val  
 35 40 45  
 Glu Ala Met Val Asn Glu Asn Val Ser Leu Val Ile Ser Arg Gln Leu  
 50 55 60  
 Leu Thr Asp Phe Cys Thr His Leu Pro Asn Leu Pro Asp Ser Thr Ala  
 65 70 75 80  
 Lys Glu Ile Tyr His Phe Thr Leu Glu Lys Ile Gln Pro Arg Val Ile  
 85 90 95  
 Ser Phe Glu Glu Gln Val Ala Ser Ile Arg Gln His Leu Ala Ser Ile  
 100 105 110  
 Tyr Glu Lys Glu Glu Asp Trp Arg Asn Ala Ala Gln Val Leu Val Gly  
 115 120 125  
 Ile Pro Leu Glu Thr Gly Gln Lys Gln Tyr Asn Val Asp Tyr Lys Leu  
 130 135 140  
 Glu Thr Tyr Leu Lys Ile Ala Arg Leu Tyr Leu Glu Asp Asp Asp Pro  
 145 150 155 160  
 Val Gln Ala Glu Ala Tyr Ile Asn Arg Ala Ser Leu Leu Gln Asn Glu  
 165 170 175  
 Ser Thr Asn Glu Gln Leu Gln Ile His Tyr Lys Val Cys Tyr Ala Arg

	180		185		190										
Val	Leu	Asp	Tyr	Arg	Arg	Lys	Phe	Ile	Glu	Ala	Ala	Gln	Arg	Tyr	Asn
	195					200						205			
Glu	Leu	Ser	Tyr	Lys	Thr	Ile	Val	His	Glu	Ser	Glu	Arg	Leu	Glu	Ala
	210					215						220			
Leu	Lys	His	Ala	Leu	His	Cys	Thr	Ile	Leu	Ala	Ser	Ala	Gly	Gln	Gln
	225				230					235				240	
Arg	Ser	Arg	Met	Leu	Ala	Thr	Leu	Phe	Lys	Asp	Glu	Arg	Cys	Gln	Gln
			245						250				255		
Leu	Ala	Ala	Tyr	Gly	Ile	Leu	Glu	Lys	Met	Tyr	Leu	Asp	Arg	Ile	Ile
			260				265					270			
Arg	Gly	Asn	Gln	Leu	Gln	Glu	Phe	Ala	Ala	Met	Leu	Met	Pro	His	Gln
		275					280					285			
Lys	Ala	Thr	Thr	Ala	Asp	Gly	Ser	Ser	Ile	Leu	Asp	Arg	Ala	Val	Ile
	290					295					300				
Glu	His	Asn	Leu	Leu	Ser	Ala	Ser	Lys	Leu	Tyr	Asn	Asn	Ile	Thr	Phe
	305					310				315				320	
Glu	Glu	Leu	Gly	Ala	Leu	Leu	Glu	Ile	Pro	Ala	Ala	Lys	Ala	Glu	Lys
			325					330					335		
Ile	Ala	Ser	Gln	Met	Ile	Thr	Glu	Gly	Arg	Met	Asn	Gly	Phe	Ile	Asp
			340					345					350		
Gln	Ile	Asp	Gly	Ile	Val	His	Phe	Glu	Thr	Arg	Glu	Ala	Leu	Pro	Thr
		355					360					365			
Trp	Asp	Lys	Gln	Ile	Gln	Ser	Leu	Cys	Phe	Gln	Val	Asn	Asn	Leu	Leu
	370					375					380				
Glu	Lys	Ile	Ser	Gln	Thr	Ala	Pro	Glu	Trp	Thr	Ala	Gln	Ala	Met	Glu
	385				390					395				400	
Ala	Gln	Met	Ala	Gln											
				405											

&lt;210&gt; 4929

&lt;211&gt; 5907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4929

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 360  
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 480  
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2160

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275          280          285
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290          295          300
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Ala Pro Glu Val Ile Arg Met Gln Asp Asn Asn Pro Phe Ser Phe Gln
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Cys Pro Lys Ala Met Lys Arg Leu Val Ala Asp Cys Val Lys Lys Val
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 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val  
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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu
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<213> Homo sapiens
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 <213> Homo sapiens

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Pro Pro Ile	Pro Ala Ala	Thr Glu	Pro Val Cys	Ala Ser Ser	Arg
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Ser Gly Arg	Pro Thr Ala	Thr Ala Cys	Ser Leu Gln	Pro Leu Leu	Asp
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&lt;210&gt; 4941

&lt;211&gt; 1718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4941

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<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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		20						25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
	50					55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65				70					75					80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85						90					95	
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
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Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
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Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile	
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Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
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Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
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&lt;210&gt; 4943

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4943

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&lt;210&gt; 4944

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4944

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			20					25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35				40					45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr	
	50				55				60						
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65				70				75				80			
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
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&lt;210&gt; 4945

&lt;211&gt; 1792

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4945

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 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser  
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 65 70 75 80  
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn  
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 100 105 110  
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2060

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<211> 127

<212> PRT

<213> Homo sapiens

<400> 4948

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		20					25						30		
Val	Asp	Asp	Met	Trp	His	Tyr	Ala	Gly	Asp	Gln	Ser	Thr	Asp	Phe	Asn
	35						40					45			
Trp	Tyr	Thr	Arg	Arg	Ala	Met	Leu	Ala	Ala	Ile	Tyr	Asn	Thr	Thr	Glu
	50					55					60				
Leu	Val	Met	Met	Gln	Asp	Ser	Ser	Pro	Asp	Phe	Glu	Asp	Thr	Trp	Arg
65				70						75				80	
Phe	Leu	Glu	Asn	Arg	Val	Asn	Asp	Ala	Met	Asn	Met	Gly	His	Thr	Ala
			85						90					95	
Lys	Gln	Val	Lys	Ser	Thr	Gly	Glu	Ala	Leu	Val	Gln	Gly	Leu	Met	Gly
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<211> 1259

<212> DNA

<213> Homo sapiens

<400> 4949

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4120



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	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
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&lt;210&gt; 4951

&lt;211&gt; 1835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

```

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1020

```

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 1835

&lt;210&gt; 4952

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4952

Met Ala Ala Ala Val Ser Gly Ala Leu Gly Arg Ala Gly Trp Arg  
 1 5 10 15  
 Leu Leu Gln Leu Arg Cys Leu Pro Val Ala Arg Cys Arg Gln Ala Leu  
 20 25 30  
 Val Pro Arg Ala Phe His Ala Ser Ala Val Gly Leu Arg Ser Ser Asp  
 35 40 45  
 Glu Gln Lys Gln Gln Pro Pro Asn Ser Phe Ser Gln Gln His Ser Glu  
 50 55 60  
 Thr Gln Gly Ala Glu Lys Pro Asp Pro Glu Ser Ser His Ser Pro Pro  
 65 70 75 80  
 Arg Tyr Thr Asp Gln Gly Gly Glu Glu Glu Asp Tyr Glu Ser Glu  
 85 90 95  
 Glu Gln Leu Gln His Arg Ile Leu Thr Ala Ala Leu Glu Phe Val Pro  
 100 105 110  
 Ala His Gly Trp Thr Ala Glu Ala Ile Ala Glu Gly Ala Gln Ser Leu  
 115 120 125  
 Gly Leu Ser Ser Ala Ala Ala Ser Met Phe Gly Arg Met Gly Ser Glu  
 130 135 140  
 Leu Ile Leu His Phe Val Thr Gln Cys Asn Thr Arg Leu Thr Arg Val

```

145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

```

&lt;210&gt; 4953

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4953

```

gtgcacgcag gaaatggcgg gtgggaggca ggacaggaga gcccaggcct ggacaccact
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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcggggacc
180
taccctgcaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

```

&lt;210&gt; 4954

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4954

```

Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

```

&lt;210&gt; 4955

&lt;211&gt; 364

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4955

```

agatctaagg ccctcgggag agatgggaac tgagcacctg ggtcttagac cggaggagca
60
aactgcaaga caggggtggcc ggggacacca gctccgccc ttctgtgaca taaggacaag
120
agctcagcct gcccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacctctg ggggacatct gagggcaccc ccaccacta ttctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
ggggg
364

```

&lt;210&gt; 4956

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4956

```

Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100              105              110
Gln Gly

```

<210> 4957  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4957  
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 tcttgattcc atccagggac attttttacc gaagcgtctc agagactggc tcagggtatt  
 120  
 tcttgacaag actgtacagg gcttctcatc atacacaaac cctccacagc ccacggctcc  
 180  
 aaccacagc acctcctgca gtcttgagg gaaaaggag agtaacatga agtgtctgaa  
 240  
 gatccatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga  
 300  
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat  
 360  
 caataatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tcctcataac  
 420  
 ctgactcagg taaactgcc aagatgctt gcacaggatg ctgtcactct tccgtagcac  
 480  
 tgagaatgca aatgcaggac atgaacagta atgacaagaa gccaaacatg tgtatgtttt  
 540  
 actggaactt ccaaggacct ggtaaacacg ccttccactg ggtgatgaga ttaaggatgat  
 600  
 ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag  
 660  
 cgataacaga tattcatcag gaattcggtc ccgtacttcg cgcgctctcc tgcaccgccg  
 720  
 ccgccatctc gctcaggagc tcctccacaa ccgcgggcaa ctacggccat cgcgccgcag  
 780  
 gacacgccct ccacgacgcg gaccgcgcga cgctccagct gactgcgcct acctgtggag  
 840  
 gatcctgacc ccccgccggc ctggttccga at  
 872

<210> 4958  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 4958  
 Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala  
 1 5 10 15  
 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr  
 20 25 30  
 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg  
 35 40 45  
 Arg Ser Ser  
 50

<210> 4959  
 <211> 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4959

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 60  
 cagtgggttg gggggcttcc atttgagtt gagggccagg tgtttgggtc cttccatgtg  
 120  
 gcagggataa agaggagagc tggcatctgg agtcatgata tgtctgagag gcagtgcctc  
 180  
 cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat  
 240  
 tctccagatg tggatggca gacctttgga agattcactc ggcctccact taaccttgtg  
 300  
 agaccaaagg ccacagcccc atgtgttctg cgtgctgttg aacatgtttg tatttcattg  
 360  
 gcgtggatga taatttggtt gaaaggagag atggtcacca gtggactcag tttaggaagg  
 420  
 cacaaggtc aacccttcc gtttctaga  
 449

&lt;210&gt; 4960

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4960

Met	Phe	Asn	Ser	Thr	Gln	Asn	Thr	Trp	Gly	Cys	Gly	Leu	Trp	Ser	His
1				5					10				15		
Lys	Val	Lys	Trp	Arg	Pro	Ser	Glu	Ser	Ser	Lys	Gly	Leu	Pro	Tyr	His
			20					25				30			
Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
		35					40				45				
Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
		50				55				60					
Thr	Pro	Asp	Ala	Ser	Ser	Pro	Leu	Tyr	Pro	Cys	His	Met	Glu	Gly	Pro
65				70					75			80			
Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
			85					90				95			
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu	
			100				105					110			
Asp	Thr	Arg													
			115												

&lt;210&gt; 4961

&lt;211&gt; 4737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

gcggccgcca caccagcac cacaggcacc aagtccaaca cgccacatc ctccgtgccc  
 60  
 tcggccgccc tcacaccct caacgagagc ctgcagcccc tgggggacta tggcgtgggc  
 120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc  
180  
accaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatgtt  
240  
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc  
300  
acaggaagca gccaaccca gggcatcgtg aacaaagctt tcggcatcaa caccgactcc  
360  
ctgtaccatg agctgtcgac ggcagggtct gaggtcatcg gggatgtgga cgaagggggc  
420  
gacctcctag gggagtcttc aggaatgggc aaagaagtgg ggaatctgct actggaaaac  
480  
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600  
gccaaagtca agctggaaaa ccgtatcaag gagctggaag aggaactgaa aagagtgaag  
660  
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720  
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780  
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840  
gctgtgcggt ggactgagat gatcagagcg tcccagagac acccatccgt ccaggagaag  
900  
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960  
ccggccaagc gccctatcc ctcggtgaac atccactaca agtcacccac cactgccggc  
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1260  
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3360



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4737

&lt;210&gt; 4962

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr

1	5	10	15
Ser Ser Val Pro	Ser Ala Ala Val	Thr Pro Leu Asn Glu	Ser Leu Gln
20	25	30	
Pro Leu Gly Asp Tyr Gly Val Gly	Ser Lys Asn Ser Lys Arg Ala Arg		
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
50	55	60	
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85	90	95	
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100	105	110	
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
420	425	430	
Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			

435	440	445
Ser Gly Trp Arg Pro Asn Glu Asp Asp Ala Gly Asn Gly Val Lys Pro		
450	455	460
Ala Pro Gly Arg Asp Pro Leu Thr Cys Asp Arg Glu Gly Asp Gly Glu		
465	470	475
Pro Lys Ser Ala His Ala Ser Pro Glu Lys Lys Lys Ala Lys Glu Leu		480
	485	490
Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr		495
	500	505
Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr		510
	515	520
Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser		525
	530	535
Ser Ile Pro Ala Ala Ser Asp Ser Asp Tyr Pro Pro Gly Glu Met Phe		540
545	550	555
Leu Asp Ser Asp Val Asn Pro Glu Asp Pro Gly Ala Asp Gly Val Leu		560
	565	570
Ala Gly Ile Thr Leu Val Gly Cys Ala Thr Arg Cys Asn Val Pro Arg		575
	580	585
Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln		590
	595	600
Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser		605
	610	615
Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser		620
625	630	635
Glu Pro Glu Thr Ala Thr Leu Arg Pro Gly Pro Leu Thr Glu His Val		640
	645	650
Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser		655
	660	665
Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu		670
	675	680
Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met		685
	690	695
Trp Leu Gly Ala Gln Asn Gly Trp Leu Tyr Val His Ser Ala Val Ala		700
705	710	715
Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu		720
	725	730
Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly		735
	740	745
Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser		750
	755	760
Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys		765
	770	775
Met Ala Val Val Tyr Asp Arg Val Trp Cys Gly Tyr Lys Asn Lys Val		780
785	790	795
His Val Ile Gln Pro Lys Thr Met Gln Ile Glu Lys Ser Phe Asp Ala		800
	805	810
His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp		815
	820	825
Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His		830
	835	840
Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val		845
	850	855
Ser Lys Met Leu Gly Thr Gly Lys Leu Gly Phe Ser Phe Val Arg Ile		860

865		870		875		880									
Thr	Ala	Leu	Leu	Val	Ala	Gly	Ser	Arg	Leu	Trp	Val	Gly	Thr	Gly	Asn
				885					890					895	
Gly	Val	Val	Ile	Ser	Ile	Pro	Leu	Thr	Glu	Thr	Val	Val	Leu	His	Arg
			900					905					910		
Gly	Gln	Leu	Leu	Gly	Leu	Arg	Ala	Asn	Lys	Thr	Ser	Pro	Thr	Ser	Gly
		915					920						925		
Glu	Gly	Ala	Arg	Pro	Gly	Gly	Ile	Ile	His	Val	Tyr	Gly	Asp	Asp	Ser
		930				935					940				
Ser	Asp	Arg	Ala	Ala	Ser	Ser	Phe	Ile	Pro	Tyr	Cys	Ser	Met	Ala	Gln
945					950					955				960	
Ala	Gln	Leu	Cys	Phe	His	Gly	His	Arg	Asp	Ala	Val	Lys	Phe	Phe	Val
			965					970						975	
Ser	Val	Pro	Gly	Asn	Val	Leu	Ala	Thr	Leu	Asn	Gly	Ser	Val	Leu	Asp
			980					985					990		
Ser	Pro	Ala	Glu	Gly	Pro	Gly	Pro	Ala	Ala	Pro	Ala	Ser	Glu	Val	Glu
		995					1000						1005		
Gly	Gln	Lys	Leu	Arg	Asn	Val	Leu	Val	Leu	Ser	Gly	Gly	Glu	Gly	Tyr
		1010				1015						1020			
Ile	Asp	Phe	Arg	Ile	Gly	Asp	Gly	Glu	Asp	Asp	Glu	Thr	Glu	Glu	Gly
1025				1030					1035					1040	
Ala	Gly	Asp	Met	Ser	Gln	Val	Lys	Pro	Val	Leu	Ser	Lys	Ala	Glu	Arg
			1045					1050						1055	
Ser	His	Ile	Ile	Val	Trp	Gln	Val	Ser	Tyr	Thr	Pro	Glu			
			1060					1065							

&lt;210&gt; 4963

&lt;211&gt; 1575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4963

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120  
aagtgccacc cgggccactt cctgaactca cgggccctgg gcgtcatgga caagagcact  
180  
gccatcccca aagccagctc ttctgagtct ctttcggcca aaacctgcag cttattttctg  
240  
cccaattacg ttcaggacaa gtatctgtta cagcttctaa gaaacgcaga tgacgtcagc  
300  
acctgggtgg ctgcagagat tgtgaccagc cacacctcca agctgcaggt gaacttgctg  
360  
tccaaatttn tgctgattgc aaaatcttgc tatgagcaga gaaacttcgc gacagccatg  
420  
cagatcctga gcgggctgga gcacctggcc gtgaggcagt cccctgcctg gagaattctg  
480  
cctgcaaaga tagcagaggt catggaggag ctgaaagccg tggaggtctt cctgaagagc  
540  
gacagcctgt gtctgatgga agggcggcgc ttccgggccc agcccaccct gccctcggcc  
600  
cacctcctgg ccatgcacat ccagcagctg gagacaggcg gcttcaccat gaccaacggg  
660

gcccacaggt ggagcaagct caggaacatc gcaaaggtgg tgagccaggt gcacgcgttc  
 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
 ggcagagctg gtctcctccc agcagacgga gccaggacgg gcacaagagt cttggagggt  
 1140  
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 1200  
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 1260  
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 1440  
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 1560  
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 1575

&lt;210&gt; 4964

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4964

Leu	Glu	Asp	Phe	Tyr	Gly	Pro	Cys	Ala	Lys	Thr	Ser	Glu	Lys	Gly	Pro
1				5					10					15	
Tyr	Phe	Leu	Thr	Glu	Tyr	Ser	Thr	His	Gln	Leu	Phe	Ser	Gln	Leu	Thr
			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
65				70					75					80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85					90					95		
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100					105					110			
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

115	120	125
Ser Cys Tyr Glu Gln Arg Asn Phe Ala Thr Ala Met Gln Ile Leu Ser		
130	135	140
Gly Leu Glu His Leu Ala Val Arg Gln Ser Pro Ala Trp Arg Ile Leu		
145	150	155
Pro Ala Lys Ile Ala Glu Val Met Glu Glu Leu Lys Ala Val Glu Val		
165	170	175
Phe Leu Lys Ser Asp Ser Leu Cys Leu Met Glu Gly Arg Arg Phe Arg		
180	185	190
Ala Gln Pro Thr Leu Pro Ser Ala His Leu Leu Ala Met His Ile Gln		
195	200	205
Gln Leu Glu Thr Gly Gly Phe Thr Met Thr Asn Gly Ala His Arg Trp		
210	215	220
Ser Lys Leu Arg Asn Ile Ala Lys Val Val Ser Gln Val His Ala Phe		
225	230	235
Gln Glu Asn Pro Tyr Thr Phe Ser Pro Asp Pro Lys Leu Gln Ser Tyr		
245	250	255
Leu Lys Gln Arg Ile Ala Arg Phe Ser Gly Ala Asp Ile Ser Thr Leu		
260	265	270
Ala Ala Asp Ser Arg Ala Asn Phe His Gln Val Ser Ser Glu Lys His		
275	280	285
Ser Arg Lys Ile Gln Asp Lys Leu Arg Arg Met Lys Ala Thr Phe Gln		
290	295	300

&lt;210&gt; 4965

&lt;211&gt; 1474

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4965

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 60  
 aaagcattca aaggagcag caggtctctc cccacgcctt gcagagacgg tcaggagaga  
 120  
 cccaagcag agagcacgct gctcaggagc agagctgggc ttgtgaccat gtgtcgccct  
 180  
 ggcgctgtgc ttccaggtcc tcgcctggag ggcagctgta ttctcagaga gccagccttt  
 240  
 cctacagccc ttttagtgac caggggcatt tcctaccctc acttgatctc aaagccacgg  
 300  
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 360  
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 420  
 aaggccgctt ctcaggagtc cagagtccca taaaccacca tgagtgcctt cctgggatct  
 480  
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 600  
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 660  
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 720

agacgtggaa ggagccagtg tccgcagccg tctcaggacg tcagagagct cggtaggcctg  
 780  
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 840  
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 960  
 catagaaatg ggttgtaggc cacgtgtgga acagaggggg tcgtttactc tcctcccat  
 1020  
 aatggtagtt ttctagttca caaattccct tggtagttga agacagcttt tccattttca  
 1080  
 cctgtatttt ggtcaacca tccaaggtgg cctgcagttc ctcacacagc ttctccagtt  
 1140  
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 1200  
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 1260  
 tggtaaaacc tgcattcattg agggtttccc acttcaggat taaattgtgc caatcagccg  
 1320  
 cattgtcctt aatttttctt gcactgacag ataagacagg ttttctgggc gttacagttc  
 1380  
 caagagtctt tgcttcata aggtccacag atatccgtag aaggagctgc tcctgaagcg  
 1440  
 cacggtggac aggtagctca gggtaggtc gcga  
 1474

&lt;210&gt; 4966

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4966

Met Glu Ala Lys Thr Leu Gly Thr Val Thr Pro Arg Lys Pro Val Leu  
 1 5 10 15  
 Ser Val Ser Ala Arg Lys Ile Lys Asp Asn Ala Ala Asp Trp His Asn  
 20 25 30  
 Leu Ile Leu Lys Trp Glu Thr Leu Asn Asp Ala Gly Phe Thr Thr Ala  
 35 40 45  
 Asn Asn Ile Ala Asn Leu Lys Ile Ser Leu Leu Asn Lys Asp Lys Ile  
 50 55 60  
 Glu Leu Asp Ser Ser Ser Pro Ala Ser Lys Glu Asn Glu Glu Lys Val  
 65 70 75 80  
 Cys Leu Glu Tyr Asn Glu Glu Leu Glu Lys Leu Cys Glu Glu Leu Gln  
 85 90 95  
 Ala Thr Leu Asp Gly Leu Thr Lys Ile Gln Val Lys Met Glu Lys Leu  
 100 105 110  
 Ser Ser Thr Thr Lys Gly Ile Cys Glu Leu Glu Asn Tyr His Tyr Gly  
 115 120 125  
 Glu Glu Ser Lys Arg Pro Pro Leu Phe His Thr Trp Pro Thr Thr His  
 130 135 140  
 Phe Tyr Glu Val Ser His Lys Leu Leu Glu Met Tyr Arg Lys Glu Leu  
 145 150 155 160  
 Leu Leu Lys Arg Thr Val Ala Lys Glu Leu Ala His Thr Gly Asp Pro

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                165                170                175
Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
                180                185                190
Glu Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly
                195                200                205
His Arg Ala Leu
                210

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<210> 4967  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

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<400> 4967
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120
cgccttgacc tccaaaatag ctgnggttac acgcgtgagc ccccatgccc agcttcccag
180
taagacattt attctgagga gttggctcac atgagtaagg aggctgagaa gttccacaat
240
ctgaacattc aggagaaagc tggatgatgta atttggctctg agtcccaatg cctgagaacc
300
agagaagccg atggtataaa tcccagtgca aaggcaggag aagacccatg tcccagctca
360
gaaggcaggc aggaagcaaa aggggcaaat ttctccgtcc tctgcctctt tttttctat
420
tcaggctctc agaggcttgg atgatgtcca ttcacattgg gcagggctag gtacttttct
480
gagtcaccg actgaaatac taatctcatc cagaaacacc tgcacagaca cacaataaaa
540
tgtttaattc
550

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<210> 4968  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

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<400> 4968
Glu Thr Gly Ser His Ser Val Ile Gln Ala Gly Met Leu Trp His Asn
1          5          10          15
Tyr Ser Ser Leu Gln Pro Arg Thr Pro Gly Leu Lys Gln Ser Phe Arg
20        25        30
Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
35        40        45
Ala Ser Gln
50

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<210> 4969  
 <211> 2911  
 <212> DNA  
 <213> Homo sapiens



<400> 4969  
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cctaccctta caacttcagt aacttgccg ctcccggttg ctctcaacat ggtcctacct  
120  
gatgagaagg gtgcgggggc ccttcccttc ctaccagggg tctttggcta cgcagtgaat  
180  
cctcaagcag cccccctgc cccaccaaca ccacctcccc caactcttcc tccaccaatt  
240  
ccccctaagg gagaagggga aagggcaggg gttgagagaa cccagaaggg cgatgtgggg  
300  
ntgaacctg gggctcaatc cccctttcac cagatgccac cctccctgaa cccccacca  
360  
ctaccagctc cctggcctcc ctgccccttg ggagccctt cacactcttg tgcagggact  
420  
tgggggcccc tggagctcag gggtcaggct gctttgtgtg agatgtagt ttcccatctc  
480  
ctgggaaggg atctttcgag gttccctct cagtcttct ccagggaatg gcctccatga  
540  
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600  
cctgaatctc tactcacagc ccccaccagc tctgaatgtc taacctgctc cctgattcg  
660  
taaacctagg ggaaaccatc tctctcacct aatgaccgc cttgttctga agctttctct  
720  
aagcccttcc cagttgcttc ctagcacatt ccattctttg tggcccaggg ctggaccaga  
780  
ccatttgtat acctgacccc gccacactgg gagtgtggct ttgggtttca tcttcccca  
840  
gcgtgggtct ctacgtccct gtttcccttg tatcaagaca ccttctcag ctcccatgcc  
900  
tttggatctt ccattgttct ccccatattc ctggacttcg gagatggcct ctccaagcc  
960  
aggtcaagga ggtttggggg aggggtgccc ctctgccct ctgttctgtg gctgagcact  
1020  
ttcccagtc agggcaggga aatattggcc ctatcttgac ccccaaacc agtgagctcc  
1080  
agattcttcc aaggcaaaag aggtaagcag atcacacctc tttctgcctc tacatatggc  
1140  
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1200  
agggaatcta ctttctccct gttttttttt cctgatgggt tctcccagac tagaccaaat  
1260  
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1320  
catccttacc tgtattccca tctcccagc gtcactcccc tcaccaatca ctccagatgg  
1380  
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1560

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1620  
ttgaaaactg ggctccctg ctctgtgatt ggataaatat tccccatccc acccacctcc  
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attagaggag tgcagtttta aaaggaaaag ttgctgtcat caaatggca gccttttccc  
1800  
cagctactgt ttttggggcc aagatggctg ccctagcagc aatcactgcc aagggaaga  
1860  
tcatggcttt tggagggagg tgagtttagg gagggccagg accatcctcc taccctcat  
1920  
accctcccag catatacaaa aggggaggtt ttagacagc tccctgaatg ttaaccacag  
1980  
aggagtact ccttcattcc tcctctgtct ctttgactt ttcttgggtt tggccacagc  
2040  
ctgagtgcg aatttcctac tgaatgtacc aagttccaat ttttaagggg gggaaaggtt  
2100  
tcaaattggg aaaaacacac aaaaaaaaaa tcaataaaaa tccccacaaa tcttgtttct  
2160  
ggcacttttag aaaaactgca aaaaaatacg taataaagaa tacatatata tatatctaca  
2220  
cacaattat atatctatct atctatacag cggaaccaca agagagactg aggaaggcct  
2280  
ggaggcaggg gcagaggtga cgacagtgc cctatatcct taaccatac tcctctgagg  
2340  
caaacaggca tgggaaaatg gaagggttga ggatggaccg gagaattgga acttcagaat  
2400  
aggtcaaaat tccaaaacca tggacatttt tttttgggag aattgagatt gtagacattt  
2460  
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2520  
aatgagattg tggcgacgtg gagattaaaa tatatgtatt tgagctgggg aatttgaata  
2580  
ttgtgagttt cagatgttgg aaatttggga ttttgcagtt ttgtcttttg aaaatgatca  
2640  
agtctgttca gtctgtgccc tctttcccca tgttccctgg gaagacgggt ggtggcagag  
2700  
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2760  
tatacgtagt gaggaccag atttagagaa actgaccaat atttatctcc gcatttgtgt  
2820  
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2880  
aaaaaaaaa aatgtctaca atctcaattc t  
2911

&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

Pro Xaa Ser Leu Ser Thr Leu Ser Pro Thr Arg Ser Ser Met Ala Pro

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<210> 4971
<211> 2939
<212> DNA
<213> Homo sapiens
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120
gcagtcttta atctgataaa gcggttatct cgtcttgagt cccagggtgcc gagtcaatcc
180
ccatacacag ccgccgccat tgcctcgagt ccttggtgtct gactgtctgt tctgtctgct
240
gtatgacaca gcacctcgag gcaaggaaat aagaaaactg cctctgatcc aagcagagaa
300
ggtcagtgag aagggtctgcc tgtagatctg ctgtagggct tgtcaccatt ggaagcaagg
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&lt;210&gt; 4972

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4972

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<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 4974

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<212> PRT

<213> Homo sapiens

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&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

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2220  
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2280  
tcaaggaatg actcctgctc ggatttacc gagatccaga atggctggaa aaccacttct  
2340  
cacacggagt tgggtcgggg agccagaatc acctaccagt gtgaccccg ctatgacatc  
2400

gtggggagtg acaccctcac ctgccagtgg gacctcagct ggagcagcga cccccattt  
 2460  
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 2580  
 cttgaagga gttctcttct gacctgctac agccgtgaaa cagggactcc catctggacg  
 2640  
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 2700  
 gaaaatggat accaaatcct gtacaagcga ctctacctgc caggagagtc cctcaccttc  
 2760  
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 2820  
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 3309

&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo. sapiens

&lt;400&gt; 4978

Met	Ala	Gln	Glu	Ala	Pro	Gln	Glu	Asp	Thr	Ser	Pro	Met	Ala	Leu	Met
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Asp	Lys	Gly	Glu	Asn	Glu	Leu	Thr	Gly	Ser	Ala	Ser	Glu	Glu	Ser	Gln
		20						25					30		
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
		35				40						45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
	50					55					60				
Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
65				70					75					80	
Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
			85					90					95		
Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
			100					105					110		
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

115 120 125  
 Glu Gly Gln Val Ile Arg Ser Pro Thr Asn Thr Ile Ser Val Tyr Phe  
 130 135 140  
 Arg Thr Phe Gln Asp Asp Gly Leu Gly Thr Phe Gln Leu His Tyr Gln  
 145 150 155 160  
 Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp  
 165 170 175  
 Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys  
 180 185 190  
 His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn  
 195 200 205  
 Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro  
 210 215 220  
 Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro  
 225 230 235 240  
 Ser Tyr Pro Glu Asn Thr Asn Gly Ser Gln Phe Cys Ile Trp Thr Ile  
 245 250 255  
 Glu Ala Pro Glu Gly Gln Lys Leu His Leu His Phe Glu Arg Leu Leu  
 260 265 270  
 Leu His Asp Lys Asp Arg Met Thr Val His Ser Gly Gln Thr Asn Lys  
 275 280 285  
 Ser Ala Leu Leu Tyr Asp Ser Leu Gln Thr Glu Ser Val Pro Phe Glu  
 290 295 300  
 Gly Leu Leu Ser Glu Gly Asn Thr Ile Arg Ile Glu Phe Thr Ser Asp  
 305 310 315 320  
 Gln Ala Arg Ala Ala Ser Thr Phe Asn Ile Arg Phe Glu Ala Phe Glu  
 325 330 335  
 Lys Gly His Cys Tyr Glu Pro Tyr Ile Gln Asn Gly Asn Phe Thr Thr  
 340 345 350  
 Ser Asp Pro Thr Tyr Asn Ile Gly Thr Ile Val Glu Phe Thr Cys Asp  
 355 360 365  
 Pro Gly His Ser Leu Glu Gln Gly Pro Ala Ile Ile Glu Cys Ile Asn  
 370 375 380  
 Val Arg Asp Pro Tyr Trp Asn Asp Thr Glu Pro Leu Cys Arg Ala Met  
 385 390 395 400  
 Cys Gly Gly Glu Leu Ser Ala Val Ala Gly Val Val Leu Ser Pro Asn  
 405 410 415  
 Trp Pro Glu Pro Tyr Val Glu Gly Glu Asp Cys Ile Trp Lys Ile His  
 420 425 430  
 Val Gly Glu Glu Lys Arg Ile Phe Leu Asp Ile Gln Phe Leu Asn Leu  
 435 440 445  
 Ser Asn Ser Asp Ile Leu Thr Ile Tyr Asp Gly Asp Glu Val Met Pro  
 450 455 460  
 His Ile Leu Gly Gln Tyr Leu Gly Asn Ser Gly Pro Gln Lys Leu Tyr  
 465 470 475 480  
 Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly  
 485 490 495  
 Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val  
 500 505 510  
 Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp  
 515 520 525  
 Lys Thr Thr Ser His Thr Glu Leu Val Arg Gly Ala Arg Ile Thr Tyr  
 530 535 540  
 Gln Cys Asp Pro Gly Tyr Asp Ile Val Gly Ser Asp Thr Leu Thr Cys

545                      550                      555                      560  
 Gln Trp Asp Leu Ser Trp Ser Ser Asp Pro Pro Phe Cys Glu Lys Ile  
                                  565                      570                      575  
 Met Tyr Cys Thr Asp Pro Gly Glu Val Asp His Ser Thr Arg Leu Ile  
                                  580                      585                      590  
 Ser Asp Pro Val Leu Leu Val Gly Thr Thr Ile Gln Tyr Thr Cys Asn  
                                  595                      600                      605  
 Pro Gly Phe Val Leu Glu Gly Ser Ser Leu Leu Thr Cys Tyr Ser Arg  
                                  610                      615                      620  
 Glu Thr Gly Thr Pro Ile Trp Thr Ser Arg Leu Pro His Cys Val Ser  
 625                      630                      635                      640  
 Glu Glu Ser Leu Ala Cys Asp Asn Pro Gly Leu Pro Glu Asn Gly Tyr  
                                  645                      650                      655  
 Gln Ile Leu Tyr Lys Arg Leu Tyr Leu Pro Gly Glu Ser Leu Thr Phe  
                                  660                      665                      670  
 Met Cys Tyr Glu Gly Phe Glu Leu Met Gly Glu Val Thr Ile Arg Cys  
                                  675                      680                      685  
 Ile Leu Gly Gln Pro Ser His Trp Asn Gly Pro Leu Pro Val Cys Lys  
                                  690                      695                      700  
 Val Asn Gln Asp Ser Phe Glu His Ala Leu Glu Ala Glu Ala Ala Ala  
 705                      710                      715                      720  
 Glu Thr Ser Leu Glu Gly Gly Asn Met Ala Leu Ala Ile Phe Ile Pro  
                                  725                      730                      735  
 Val Leu Ile Ile Ser Leu Leu Leu Gly Gly Ala Tyr Ile Tyr Ile Thr  
                                  740                      745                      750  
 Arg Cys Arg Tyr Tyr Ser Asn Leu Arg Leu Pro Leu Met Tyr Ser His  
                                  755                      760                      765  
 Pro Tyr Ser Gln Ile Thr Val Glu Thr Glu Phe Asp Asn Pro Ile Tyr  
                                  770                      775                      780  
 Glu Thr Gly Gly Thr Gln Lys Val  
 785                      790

&lt;210&gt; 4979

&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4979

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 300  
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 360  
 aagaaaagcc tgagcgcccc caatgctgcg gtggagagga ggaacctgat caccgtgtgc  
 420  
 aggttttctg tgaagacct gattgatcgg tcttgctttg agacaattga tgattcttct  
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cctgaattta acaattttgc agctattttg gaacagattt taagccaccg gctaaaaggt  
540  
caagtaacct ggtttggtta tgaaagtcct cgtagcttct gggactatat cagagtggct  
600  
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660  
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720  
tacatctcta cagctctgag agacttcaaa acaaccagga gattttatga agatggagca  
780  
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840  
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900  
tatacccat atttgaagta tatccaaagt tctgatagta tcagcagtga tgaggaggag  
960  
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1020  
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1080  
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1140  
tctgaatctg tctcccagaa taaaatacta cttcaaagga ttgaagattc cgatctggct  
1200  
cataaactgg agaaggaaca attagaatat ataattgtgg agcttcaaga tcagctgact  
1260  
gtgctaaaga ataatgattt aagatcgaga caagagttaa ctgcccattc caccaaccag  
1320  
tggccttctc caggagctct ggatgtcaat gctgttgctt tggatacgtt gctttaccga  
1380  
aaacacaata aacagtggaa agtttatcaa agtcttgacc agttatcagc agaagtttagc  
1440  
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1500  
ttaaatgtaa tgagtgaagg taaggaagat actccctcat tacttggcct ctgtggatct  
1560  
ctaacgtcag tggcaagtta caagtctcta acaagcttaa aatctaataga ctaccttgca  
1620  
agtcctacaa cagagatgac aagtccaggc ctaactccat cctgaaaatt tttgtgtaaa  
1680  
agccaaaact ttttatgttg taaatgttta atttcatgt ttgactgctg ggaagacctt  
1740  
tgaaatttta tattgttctg gtacatgtct gaaattctat tgcttggaga gaatccctc  
1800  
cagataagag attttgagtg aaaaacataa tgatcctgcc atttttcatt tttaaaattc  
1860  
ttaca  
1865

&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4980

Glu Gly Leu Asp Gly Ser Phe Pro Ala Val Ile Asp Tyr Thr Pro Tyr  
 1 5 10 15  
 Leu Lys Tyr Ile Gln Ser Ser Asp Ser Ile Ser Ser Asp Glu Glu Glu  
 20 25 30  
 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
 50 55 60  
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Gln Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
 130 135 140  
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp  
 145 150 155 160  
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys  
 165 170 175  
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser  
 180 185 190  
 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly  
 195 200 205  
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
 225 230 235 240  
 Ser Leu Thr Ser Leu Lys Ser Asn Asp Tyr Leu Ala Ser Pro Thr Thr  
 245 250 255  
 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser  
 260 265

&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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 120  
 tcctctccag atctgccggt tcattatata cctgtggcac ctgactctaa tacctgagcc  
 180  
 aagaatggaa gtttgtgagg agacggactc tatgttgccc aggctgttat ggaactcctg  
 240  
 agtcaagtga tcctcccacc ttggcctctg aagggtgcgag gattataggg gtcacctacc  
 300  
 acatccagcc tacacgtatt tgtaatatc taacatagga ctaaccagcc actgcctctc  
 360

cttaggcccc tcatttaaaa acggttatac tataaaatct gcttttcaca ctgggtgata  
420  
ataacttgga caaattctat gtgtattttg ttttgttttg ctttgctttg ttttgagacg  
480  
gagtctcgct ctgtcatcca ggctggagtg cagtggcatg atctcggtc actgcaaccc  
540  
ccatctccca ggttcaagcg attctcctgc ctctcctaa gtagctggga ctacaggtgc  
600  
tcaccaccac acccggttaa tttttgtatt tttagtagag acgggggttc accatgttga  
660  
ccaggctggt ctggaactcc tgacctggtg atctgccac ccaggcctcc caaagtgctg  
720  
ggattaaagg tgtgagccac catgcctggc cctatgtgtg ttttttaact actaaaaatt  
780  
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900  
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1260  
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1320  
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1380  
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1740  
caattctagg atcacagtac ctgcattctg aaggatggcg ccgatttccc gttcaatgtc  
1800  
ttccagagcg cgtagtctct cgttcgccag gctgtaggta gccattatca ctctgggaat  
1860  
tctcaccaag agtttctcct cagaaacgcg acgcttggtc cc  
1902

&lt;210&gt; 4982

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4982

Met Cys Ile Leu Phe Cys Phe Ala Leu Leu Cys Phe Glu Thr Glu Ser  
 1 5 10 15  
 Arg Ser Val Ile Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu  
 20 25 30  
 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Leu Ser  
 35 40 45  
 Ser Trp Asp Tyr Arg Cys Ser Pro Pro His Pro Ala Asn Phe Cys Ile  
 50 55 60  
 Phe Ser Arg Asp Gly Val Ser Pro Cys  
 65 70

&lt;210&gt; 4983

&lt;211&gt; 1418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4983

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 120  
 catgaaattc tggagcttat tattgaaaaa ctactcaagt tggatgtgaa tgcattcccgg  
 180  
 cagggtattg aagatgctga agaaacagca actcaaactt ttgggtgggac agattccacg  
 240  
 gaaggattgt ttaatatgga tgaagatgaa gaaactgaac atgaaacaaa ggctggctcct  
 300  
 gaacggctcg accagatggg gcattcctgta gccgagcgcc tggacatcct gatgtctttg  
 360  
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 420  
 aaggatctat atcgcgacct gataaacatc ttgacaaaac tcctgttgcc caccatgcc  
 480  
 tcctgccatg tacagttttt catgttttac ctctgtagtt tcaaattggg attcgcagag  
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 660  
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 720  
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 780  
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 840  
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 960

cagctcgtct tctgctacac catcattgag aggaacaatc gccagatgct gccagtcatt  
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 1080  
 ccctttgatc cctgtgtgct gaagaggtca aagaaattca ttgatcctat ttatcaggtg  
 1140  
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 1200  
 gtggaagatg aagatgatga ctttctgaaa ggcgaaattc cccagaaatt agtagtaagt  
 1260  
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 1320  
 ttaatttcaa aggagtttgt gaaaaaaaaat ccatggtgaa aatgaaacaa tgacatgggt  
 1380  
 aatctggaac ttacgttctt ataccaataa aaggtacc  
 1418

<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

Leu	Gly	Phe	Ala	Glu	Ala	Phe	Leu	Glu	His	Leu	Trp	Lys	Lys	Leu	Gln
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Asp	Pro	Ser	Asn	Pro	Ala	Ile	Ile	Arg	Gln	Ala	Ala	Gly	Asn	Tyr	Ile
			20					25					30		
Gly	Ser	Phe	Leu	Ala	Arg	Ala	Lys	Phe	Ile	Pro	Leu	Ile	Thr	Val	Lys
		35					40					45			
Ser	Cys	Leu	Asp	Leu	Leu	Val	Asn	Trp	Leu	His	Ile	Tyr	Leu	Asn	Asn
	50					55				60					
Gln	Asp	Ser	Gly	Thr	Lys	Ala	Phe	Cys	Asp	Val	Ala	Leu	His	Gly	Pro
65					70					75				80	
Phe	Tyr	Ser	Ala	Cys	Gln	Ala	Val	Phe	Tyr	Thr	Phe	Val	Phe	Arg	His
			85					90						95	
Lys	Gln	Leu	Leu	Ser	Gly	Asn	Leu	Lys	Glu	Gly	Leu	Gln	Tyr	Leu	Gln
			100					105					110		
Ser	Leu	Asn	Phe	Glu	Arg	Ile	Val	Met	Ser	Gln	Leu	Asn	Pro	Leu	Lys
		115					120					125			
Ile	Cys	Leu	Pro	Ser	Val	Val	Asn	Phe	Phe	Ala	Ala	Ile	Thr	Asn	Lys
	130					135						140			
Tyr	Gln	Leu	Val	Phe	Cys	Tyr	Thr	Ile	Ile	Glu	Arg	Asn	Asn	Arg	Gln
145					150					155				160	
Met	Leu	Pro	Val	Ile	Arg	Ser	Thr	Ala	Gly	Gly	Asp	Ser	Val	Gln	Thr
			165					170						175	
Cys	Thr	Asn	Pro	Leu	Asp	Thr	Phe	Phe	Pro	Phe	Asp	Pro	Cys	Val	Leu
			180					185					190		
Lys	Arg	Ser	Lys	Lys	Phe	Ile	Asp	Pro	Ile	Tyr	Gln	Val	Trp	Glu	Asp
		195					200					205			
Met	Ser	Ala	Glu	Glu	Leu	Gln	Glu	Phe	Lys	Lys	Pro	Met	Lys	Lys	Asp
	210					215					220				
Ile	Val	Glu	Asp	Glu	Asp	Asp	Phe	Leu	Lys	Gly	Glu	Ile	Pro	Gln	
225					230					235				240	
Lys	Leu	Val	Val	Ser	Gly	Val	Phe	Val	Gly	Trp	Glu	Val	Val	Leu	Met

245

250

255

&lt;210&gt; 4985

&lt;211&gt; 5695

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4985

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120  
gttgctgaaa acagccacca cctgaagatc tttctcccca agaagctgct ggagtgtctt  
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cctcgctgcc cgctgctgcc tccagagagg ctacgggtgga atacaaatga ggagattgca  
240  
tcctacctga tcacctttga gaagcatgat gagggtgtgt cttgtgcccc aaagacaagg  
300  
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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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		20					25						30		
Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
		35				40					45				
Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
	50				55					60					
Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile	Ala
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4161

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Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser		
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Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly		
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Pro Trp Thr Glu Ala Ala Glu His Tyr Ser Cys Val Phe Asp His Ile		
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Ala Val Pro Ala Ser Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys		
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Gly Pro Leu Ser Ala Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe		
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Leu Ser Leu Pro Ser Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn		
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Gln Phe Arg Met Ser Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg		
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Met Ala Glu Ile Ala Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp		
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Val Val Val Leu Val Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly		
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His Leu Ala Ala Ala Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser		
755	760	765
Gln Trp Arg Ser Val Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val		
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Asp Pro Leu Asn Val Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala		
785	790	795
Cys Ala Leu Gly His Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn		
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Leu Gln Arg Gln Glu Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro		
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Pro Ser Ser Ser Pro Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser		
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Glu Leu Ser Asp Gly Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala		
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Pro Asp Gly Ser Pro Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr		
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Met Glu Asp Met Ala Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala		
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<211> 357
<212> DNA
<213> Homo sapiens
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<211> 105

<212> PRT

<213> Homo sapiens

<400> 4988

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Ser	Ser	Ser	Cys	Asp	Ser	Glu	Lys	Lys	Ser	Leu	Trp	Leu	Phe	Ala	Ala
			20					25					30		
Phe	Pro	Leu	Cys	Phe	Leu	Gly	Thr	Ala	Phe	Pro	Gln	Gly	Glu	Gln	Arg
	35					40					45				
Pro	Leu	Glu	Ala	Lys	Gly	Leu	Ala	Thr	Gln	Gly	Ala	Ser	Leu	Pro	Leu
	50				55				60						
Leu	Pro	Thr	Val	Thr	Cys	Val	Ser	Ile	Lys	Ser	Trp	Lys	Met	Glu	Cys
65				70				75					80		
Pro	His	Gln	Gly	Asp	Gly	Val	Thr	Thr	Glu	Ala	Gly	Ser	Glu	Leu	Pro
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<211> 1723

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 4990

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

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Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
		20					25					30			
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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Arg	Thr	Ser	Ile	Ser	Gly										
	50														

&lt;210&gt; 4991

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4991

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&lt;210&gt; 4992

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4992

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 Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys  
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 Thr Val Met Leu Gln  
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&lt;210&gt; 4993

&lt;211&gt; 837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4993

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<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

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		20					25				30				
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
		35				40					45				
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
	50				55					60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65				70				75			80				
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
		85					90				95				
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
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Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
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<211> 1595  
<212> DNA  
<213> Homo sapiens

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<210> 4996

<211> 217

<212> PRT

<213> Homo sapiens

<400> 4996

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Ile	Ser	Leu	Thr	Met	Asn	Ser	Lys	Leu	Leu	Asn	Gly	Ser	Gln	Arg	Val
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	50					55				60					
Leu	Thr	Asn	Val	Ala	Ala	Thr	Ser	Gly	Asp	Gly	Tyr	Arg	Gly	Gln	Thr
65				70					75					80	
Ser	Pro	His	Thr	Pro	Asn	Glu	Lys	Phe	Tyr	Gly	Val	Thr	Val	Phe	Lys
			85					90					95		
Ala	Leu	Lys	Leu	Gly	Gln	Glu	Gly	Lys	Val	Pro	Leu	Gln	Ser	Ala	His
		100						105				110			
Leu	Tyr	Tyr	Asn	Val	Thr	Glu	Lys	Val	Arg	Arg	Ile	Met	Glu	Ser	Tyr
		115					120					125			
Phe	Arg	Leu	Asp	Thr	Pro	Leu	Tyr	Phe	Ser	Tyr	Ser	His	Leu	Val	Cys
	130					135				140					
Arg	Thr	Ala	Ile	Glu	Glu	Val	Gln	Ala	Glu	Arg	Lys	Asp	Asp	Ser	His
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Pro	Val	His	Val	Asp	Asn	Cys	Ile	Leu	Asn	Ala	Glu	Thr	Leu	Val	Cys
			165					170					175		
Val	Lys	Glu	Pro	Pro	Ala	Tyr	Thr	Phe	Arg	Asp	Tyr	Ser	Ala	Ile	Leu
		180						185					190		
Tyr	Leu	Asn	Gly	Asp	Phe	Asp	Gly	Gly	Asn	Phe	Tyr	Phe	Thr	Glu	Leu
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<210> 4997

<211> 1888

<212> DNA

<213> Homo sapiens

<400> 4997

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<210> 4998  
 <211> 464  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr  
 50 55 60  
 Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu  
 65 70 75 80  
 Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn  
 85 90 95  
 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly  
 100 105 110  
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 Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Pro Pro  
 130 135 140  
 Thr Leu Ser Ala Leu Pro Leu Cys His Leu Pro Leu Pro Leu His Leu  
 145 150 155 160  
 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr  
 165 170 175  
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 180 185 190  
 Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn Ile Val  
 195 200 205  
 His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Glu Ala Asn  
 210 215 220  
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 Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu  
 245 250 255  
 Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp Ser Leu  
 260 265 270  
 Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu Pro Phe Asp Gly  
 275 280 285  
 His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Lys Gly Lys Tyr Arg  
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 Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg Arg Phe  
 305 310 315 320  
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 325 330 335  
 Asp Lys Trp Ile Asn Ile Gly Tyr Glu Gly Glu Glu Leu Lys Pro Tyr

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 355 360 365  
 Val Gly Met Gly Tyr Thr Arg Glu Glu Ile Lys Glu Ser Leu Thr Ser  
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 Gln Lys Tyr Asn Glu Val Thr Ala Thr Tyr Leu Leu Leu Gly Arg Lys  
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 Thr Glu Pro Asp Glu His Gly Gly Gly Gly Ala Glu Gly Gly Ala Ala  
 405 410 415  
 Ala Arg Pro Glu Gly Glu Leu Gln His Arg Gly Glu Trp Glu Ser Arg  
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&lt;210&gt; 4999

&lt;211&gt; 1630

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4999

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&lt;210&gt; 5000

&lt;211&gt; 307

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5000

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Arg	Glu	Ser	Asn	Val	Leu	His	Glu	Lys	Ser	Lys	Gly	Lys	Thr	Arg	Glu
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Glu	Glu	His	Val	Asp	Ala	Ala	Asp	Gln	Glu	Val	Ile	Leu	Trp	Asp	His
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Leu Asp Val Pro Asp Lys Ser Gln Glu Lys Ala Asp Leu Tyr Ile His
                225                230                235                240
Val Thr Tyr Ile Lys Lys Trp Asp Ile Cys Ala Gly Asn Ala Ile Leu
                245                250                255
Lys Ala Leu Gly Gly His Met Thr Thr Leu Ser Gly Glu Glu Ile Ser
                260                265                270
Tyr Thr Gly Ser Asp Gly Ile Glu Gly Gly Leu Leu Ala Ser Ile Arg
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Gly His Lys
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&lt;210&gt; 5001

&lt;211&gt; 3427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5001

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 3420  
 aaaaaaa  
 3427

&lt;210&gt; 5002

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5002

Met	Ser	Thr	Gln	Asp	Glu	Arg	Gln	Ile	Asn	Thr	Glu	Tyr	Ala	Val	Ser
1				5					10					15	
Leu	Leu	Glu	Gln	Leu	Lys	Leu	Phe	Tyr	Glu	Gln	Gln	Leu	Phe	Thr	Asp
			20					25					30		
Ile	Val	Leu	Ile	Val	Glu	Gly	Thr	Glu	Phe	Pro	Cys	His	Lys	Met	Val
		35				40						45			
Leu	Ala	Thr	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Met	Ser	Gly	Leu
	50				55					60					
Ser	Glu	Ser	Lys	Gln	Thr	His	Val	His	Leu	Arg	Asn	Val	Asp	Ala	Ala
65				70					75					80	
Thr	Leu	Gln	Ile	Ile	Ile	Thr	Tyr	Ala	Tyr	Thr	Gly	Asn	Leu	Ala	Met
			85					90					95		
Asn	Asp	Ser	Thr	Val	Glu	Gln	Leu	Tyr	Glu	Thr	Ala	Cys	Phe	Leu	Gln
			100				105					110			
Val	Glu	Asp	Val	Leu	Gln	Arg	Cys	Arg	Glu	Tyr	Leu	Ile	Lys	Lys	Ile



115	120	125
Asn Ala Glu Asn Cys Val Arg	Leu Leu Ser Phe Ala Asp Leu Phe Ser	
130	135	140
Cys Glu Glu Leu Lys Gln Ser Ala Lys Arg Met Val Glu His Lys Phe		
145	150	155
Thr Ala Val Tyr His Gln Asp Ala Phe Met Gln Leu Leu His Asp Leu		
165	170	175
Leu Ile Asp Ile Leu Ser Ser Asp Asn Leu Asn Val Glu Lys Glu Glu		
180	185	190
Thr Val Arg Glu Ala Ala Met Leu Trp Leu Glu Tyr Asn Thr Glu Ser		
195	200	205
Arg Ser Gln Tyr Leu Ser Ser Val Leu Ser Gln Ile Arg Ile Asp Ala		
210	215	220
Leu Ser Glu Val Thr Gln Arg Ala Trp Phe Gln Gly Leu Pro Pro Asn		
225	230	235
Asp Lys Ser Val Val Gln Gly Leu Tyr Lys Ser Met Pro Lys Phe		
245	250	255
Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile		
260	265	270
Glu Ala Ser Ser Glu Asn Pro Cys Ser Leu Tyr Ser Ser Val Cys Tyr		
275	280	285
Ser Pro Gln Ala Glu Lys Val Tyr Lys Leu Cys Ser Pro Pro Ala Asp		
290	295	300
Leu His Lys Val Gly Thr Val Val Thr Pro Asp Asn Asp Ile Tyr Ile		
305	310	315
Ala Gly Gly Gln Val Pro Leu Xaa Lys His Lys Asn Lys Ser Gln		
325	330	335

&lt;210&gt; 5003

&lt;211&gt; 3729

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5003

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 300  
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 360  
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 420  
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 480  
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720  
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gagcagatgt gcctggtggc cgccttctct gtgtcctcct actccaccac agtgcaccgc  
1140  
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1200  
atgggcctgc gctccctctg tgagcagggtg agccaccacc cccctcagc tgcgcactac  
1260  
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1380  
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2340  
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2400  
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2460  
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2520  
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2580  
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2640  
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2760  
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3720  
aaaaaaaaa.  
3729

&lt;210&gt; 5004

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5004

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Ser Ser Thr Asp Asp Ser Gly Asp Asp Asp Glu Ala Thr Thr Pro Ala
1      5      10      15
Asp Lys Ser Glu Leu His His Thr Leu Lys Asn Leu Ser Leu Lys Leu
20      25      30
Asp Asp Leu Ser Thr Cys Asn Asp Leu Ile Ala Lys His Gly Ala Ala
35      40      45
Leu Gln Arg Ser Leu Asn Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu
50      55      60
Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
65      70      75      80
Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
85      90      95
Ala Glu Ile His Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu Gln
100     105     110
Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
115     120     125
His Asn Ser Leu Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala
130     135     140
Asn Pro Ser Lys Ser Phe Ile Glu Gly Ser Leu Leu Thr Pro Lys Gly
145     150     155     160
Glu Asp Ser Glu Glu Asp Glu Asp Thr Glu Tyr Phe Asp Ala Met Glu
165     170     175
Asp Ser Thr Ser Phe Ile Thr Val Ile Thr Glu Ala Lys Glu Asp Ser
180     185     190
Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
195     200     205
Ala Asp Asn Val Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser Ser
210     215     220
Lys Val Lys Arg Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser Leu
225     230     235     240
Asn Leu Trp Ser Ile Met Lys Asn Cys Ile Gly Arg Glu Leu Ser Arg
245     250     255
Ile Pro Met Pro Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln Arg
260     265     270
Leu Thr Glu Asp Leu Glu Tyr His His Leu Leu Asp Lys Ala Val His
275     280     285
Cys Thr Ser Ser Val Glu Gln Met Cys Leu Val Ala Ala Phe Ser Val
290     295     300
Ser Ser Tyr Ser Thr Thr Val His Arg Ile Ala Lys Pro Phe Asn Pro
305     310     315     320
Met Leu Gly Glu Thr Phe Glu Leu Asp Arg Leu Asp Asp Met Gly Leu
325     330     335
Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro Ser Ala Ala His
340     345     350
Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
355     360     365
Ser Ser Lys Phe Arg Gly Lys Tyr Ile Ser Ile Met Pro Leu Gly Ala
370     375     380
Ile His Leu Glu Phe Gln Ala Ser Gly Asn His Tyr Val Trp Arg Lys

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385                      390                      395                      400  
 Ser Thr Ser Thr Val His Asn Ile Ile Val Gly Lys Leu Trp Ile Asp  
                          405                      410                      415  
 Gln Ser Gly Asp Ile Glu Ile Val Asn His Lys Thr Asn Asp Arg Cys  
                          420                      425                      430  
 Gln Leu Lys Phe Leu Pro Tyr Ser Tyr Phe Ser Lys Glu Ala Ala Arg  
                          435                      440                      445  
 Lys Val Thr Gly Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr Val  
                          450                      455                      460  
 Leu Ser Gly Ser Trp Asp Glu Gln Met Glu Cys Ser Lys Val Met His  
 465                      470                      475                      480  
 Ser Ser Pro Ser Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr  
                          485                      490                      495  
 Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu  
                          500                      505                      510  
 Asn Ala Glu Asn Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn  
                          515                      520                      525  
 Glu His Glu Glu Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp  
                          530                      535                      540  
 Gln Arg Leu Met Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys  
 545                      550                      555                      560  
 Gln Arg Leu Glu Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu  
                          565                      570                      575  
 Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu Gly Glu Ala Gly  
                          580                      585                      590  
 Arg Glu Gly Arg Pro Gly Gly Glu Glu Arg Gly Ala Arg Val Gly Val  
                          595                      600                      605  
 Pro Gln Gly Arg Ile Pro Gly Glu Gln Ala Thr Ser Pro Pro Thr Ser  
                          610                      615                      620  
 Pro Leu Cys Leu Pro Ser Arg Glu Gly Gly Gly Cys Leu His Ala Thr  
 625                      630                      635                      640  
 Val Val

&lt;210&gt; 5005

&lt;211&gt; 1120

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5005

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 120  
 ggtaatggcg gcggcggtgg cggcgacggt ccagacccca tcccctctgt agccggagcc  
 180  
 gagacagccg acagcgaact ccgcggcctc ggagccggcg gcagcggcga cccccctcag  
 240  
 cctccgccgc ctgcgccgcc ggtaccccg cgccaacccc gggagtcagg ccctttgggc  
 300  
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 360  
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 420

ggctccggtc acgtcacgt atttggactg agcaacaaat ttgaatctga attcccttct  
 480  
 tcattaactg gaaaagtagc tcctgaagaa tttaaagcca gcatcaacag agttaacagt  
 540  
 tgtcttaaga agaacccttc tgtaaatgta cgttggttac ttgtggctg cctttgttgc  
 600  
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 660  
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 720  
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 900  
 aacattgggt ctacagaatc gtgtggtggt ttttttgttt ttgttttttt ttttttttta  
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 aataaccgca tgttctaagt gtgcattttt gtcaatcttt gcaacagtta tttcatacag  
 1020  
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 1080  
 cttttttgta ttatcaaaaa aatacatttg aacttagcat  
 1120

&lt;210&gt; 5006

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5006

Met	Ala	Asp	Phe	Asp	Glu	Ile	Tyr	Glu	Glu	Glu	Glu	Asp	Glu	Glu	Arg
1				5				10						15	
Ala	Leu	Glu	Glu	Gln	Leu	Leu	Lys	Tyr	Ser	Pro	Asp	Pro	Val	Val	Val
		20						25					30		
Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
		35					40					45			
Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
		50				55				60					
Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
65				70					75					80	
Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
			85					90					95		
Leu	Gly	Cys	Ser	Met	Trp	Pro	Val	Ile	Cys	Leu	Ser	Lys	Arg	Thr	Arg
			100				105						110		
Arg	Ser	Ile	Glu	Lys	Leu	Leu	Glu	Trp	Glu	Asn	Asn	Arg	Leu	Tyr	His
		115				120						125			
Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
		130				135					140				
Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
145					150					155					160
Ile	Phe	Arg	Pro	Asp											
					165										

&lt;210&gt; 5007

&lt;211&gt; 2165

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5007

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300  
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420  
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480  
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720  
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 1920  
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 1980  
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 2040  
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 2100  
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 2160  
 aaaaaa  
 2165

&lt;210&gt; 5008

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5008

Leu Asn Ser Ala Arg Lys Ser Ser Phe Phe Arg Ile Pro Val Gln Pro  
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 Gly Asn Ser Tyr Ala Ser Thr Pro Glu Leu Arg Arg Thr Arg Leu Glu  
 20 25 30  
 Ser Met Ala Lys Ile His Ala Arg Asn Gly Asp Leu Ser Glu Ala Ala  
 35 40 45  
 Met Cys Tyr Ile His Ile Ala Ala Leu Ile Ala Glu Tyr Leu Lys Arg  
 50 55 60  
 Lys Gly Met Phe Ser Met Gly Trp Pro Ala Val Leu Ser Ile Thr Pro  
 65 70 75 80  
 Asn Ile Lys Glu Glu Gly Ala Met Lys Glu Asp Ser Gly Met Gln Asp  
 85 90 95  
 Thr Pro Tyr Asn Glu Asn Ile Leu Val Glu Gln Leu Tyr Met Cys Val  
 100 105 110  
 Glu Phe Leu Trp Lys Ser Glu Arg Tyr Glu Xaa Ser Leu Leu Met Ser  
 115 120 125  
 Thr Ser Pro Ser Leu Leu Ser Leu Arg Asn Asn Glu Thr Ser Lys Asn  
 130 135 140  
 Ser Asp Leu Tyr Tyr Asp Ile His Arg Ser Tyr Leu Lys Val Ala Glu  
 145 150 155 160  
 Val Val Asn Ser Glu Ala Ala Val Trp Ser Leu Leu Ser Cys Gly Ile



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      165      170      175
Tyr Gly Gln Gly Phe Phe Glu Glu Glu Glu Gly Lys Glu Tyr Ile Tyr
      180      185      190
Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu
      195      200      205
Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln
      210      215      220
Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr
      225      230      235      240
Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu
      245      250      255
Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val
      260      265      270
Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala
      275      280      285
Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro
      290      295      300
Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu
      305      310      315      320
Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu
      325      330      335
Leu Asn Gln Leu Cys Thr Met Glu Glu Val Asp Met Ile Arg Leu Gln
      340      345      350
Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met
      355      360      365
Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro
      370      375      380
Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp
      385      390      395      400
Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
      405      410      415
Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
      420      425      430
Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
      435      440      445
Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
      450      455      460
Ser Lys Ser Asp Tyr Gly Gln Gly Arg Pro Val Lys Ala Arg Ser Gly
      465      470      475      480
Pro Asn Leu His Ser Ser Asn
      485

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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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120
ccttggaat gtcagcaaag catggcgagg agagcagctt ctctctgtc ccaaaggaa
180

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gcagaagatt aggagctaga tcaagcaaga ctgggggctg caggtgtagg aagtgaatca  
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 300  
 gcaaattggg caagaaaagc agagatggtg acaggaagaa aaagcaagca tagctgtcca  
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<210> 5010  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 5010  
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 20 25 30  
 Asn Leu Pro Gly Arg Val His Gln Phe Phe Ile Ser Pro Leu Phe Ile  
 35 40 45  
 Leu Ser Phe Glu Val Ile Leu Ile His Phe Leu His Leu Gln Pro Pro  
 50 55 60  
 Val Leu Leu Asp Leu Ala Pro Asn Leu Leu Leu Pro Phe Gly Thr Glu  
 65 70 75 80  
 Glu Lys Leu Leu Ser Ser Pro Cys Phe Ala Asp Ile Ser Lys Gly Lys  
 85 90 95  
 Glu Ser Thr Gly Pro Phe Ile Ser Cys Pro Arg Pro Ser Gln Gly Ala  
 100 105 110  
 Val Ile Met Pro Lys Pro Tyr  
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<210> 5011  
 <211> 3431  
 <212> DNA  
 <213> Homo sapiens

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 120  
 atagtcaact gcgtggaaga gaagccaaaa gaatgcaatg gtgtaaagat tccagttgat  
 180  
 gccagtaaac ctaatccaaa tgatgtggag tttgataatc tgtattttgga tatgaatgga  
 240  
 atcatccatc cctgtactca tcctgaagac aaaccagcac caaaaaatga agatgaaatg  
 300  
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 360  
 ctctacatgg caatagatgg agtggcacca cgtgtaaaaa tgaaccagca gcgttcaagg  
 420

aggttcaggg ccatcaaaga aggaatggaa gcagcagtcg agaagcagcg agtcagggaa  
480  
gaaatattgg caaaaggtgg ctttcttcct ccagaagaaa taaaagaaag atttgacagc  
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720  
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2340  
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3431

&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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 20          25          30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35          40          45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50          55          60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65          70          75          80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85          90          95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
355          360          365
Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
385          390          395          400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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· 4190

850                      855                      860  
 Pro Gln Asp Ser Trp Arg Gly Pro Pro Pro Leu Phe Gln Gln Gln Arg  
 865                      870                      875                      880  
 Phe Asp Arg Gly Val Gly Ala Glu Pro Leu Leu Pro Trp Asn Arg Met  
                     885                      890                      895  
 Leu Gln Thr Gln Asn Ala Ala Phe Gln Pro Asn Gln Tyr Gln Met Leu  
                     900                      905                      910  
 Ala Gly Pro Gly Gly Tyr Pro Pro Arg Arg Asp Asp Arg Gly Gly Arg  
                     915                      920                      925  
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<210> 5013  
 <211> 2480  
 <212> DNA  
 <213> Homo sapiens

<400> 5013  
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 120  
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 1020

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2280  
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2400  
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2460  
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2480

&lt;210&gt; 5014

&lt;211&gt; 675

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

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Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr
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Ala Leu Val Tyr His Glu Asp Met Thr Ala Thr Arg Leu Leu Trp Asp
 20           25           30
Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
 35           40           45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
 50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65           70           75           80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
 85           90           95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
 100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
 115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
 130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
 145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
 165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
 180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
 195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
 210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
 225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
 245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
 260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
 275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
 290          295          300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
 305          310          315          320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
 325          330          335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
 340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
 355          360          365
Pro His Trp Lys Ser Leu Gln Gln Asp Val Thr Ala Val Pro Met
 370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
 385          390          395          400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

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 Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro  
 450 455 460  
 His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu  
 465 470 475 480  
 Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile  
 485 490 495  
 Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val  
 500 505 510  
 Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu  
 515 520 525  
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu  
 530 535 540  
 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His  
 545 550 555 560  
 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile  
 565 570 575  
 Leu Gly Leu Val Leu Pro Leu Ala Tyr Gly Phe Gln Pro Asp Leu Val  
 580 585 590  
 Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala  
 595 600 605  
 Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala  
 610 615 620  
 Leu Leu Glu Glu Val Ser Trp Ala Gly Trp Arg Cys Cys Gly Val Gly  
 625 630 635 640  
 Arg Gly Glu Gly Pro Val Thr Ala Ser Val Phe Ala Pro Gly Pro Glu  
 645 650 655  
 Leu His Thr Pro Ala Ser Arg Asp Pro Gly Pro Gly Ala Glu Trp Arg  
 660 665 670  
 Gly Thr Ser  
 675

&lt;210&gt; 5015

&lt;211&gt; 1360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5015

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&lt;210&gt; 5016

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5016

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5017

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**4200**



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&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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&lt;210&gt; 5024

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5024

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Arg Arg Gly Lys Ser Arg Ala Ile Gly Cys Asp Glu Val Thr Pro Phe		
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Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala		
275	280	285
Gly Leu Ile Ser Val Asn Ser Gly Ala Pro Ala Ser His Glu Cys Ala		
290	295	300
Pro Trp Val Pro Ser Pro Leu Ser Ile Ser Leu Ser Arg Leu Asp Leu		
305	310	315
Gly Ser Gly		320

&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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 420  
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<210> 5026

<211> 136

<212> PRT

<213> Homo sapiens

<400> 5026

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Leu	Leu	Phe	Cys	Lys	Arg	His	Arg	Ser	Leu	Val	Arg	Gln	Glu	His	Pro
		20						25					30		
Arg	Leu	Asp	Asn	Arg	Gly	Ala	Thr	Lys	Ile	Leu	Ala	Asp	Trp	Trp	Ala
	35						40					45			
Val	Leu	Asp	Pro	Lys	Glu	Lys	Gln	Lys	Tyr	Thr	Asp	Met	Ala	Lys	Glu
	50					55					60				
Tyr	Lys	Asp	Ala	Phe	Met	Lys	Ala	Asn	Pro	Gly	Tyr	Lys	Trp	Cys	Pro
65				70					75					80	
Thr	Thr	Asn	Lys	Pro	Val	Lys	Ser	Pro	His	Pro	Leu	Ser	Ile	His	Glu
		85						90					95		
Arg	Asn	Phe	Gly	Pro	Ser	His	Leu	Thr	Leu	Gln	Glu	Thr	Cys	Gln	Ala
		100					105						110		
Pro	Arg	Lys	Gln	Arg	Leu	Lys	Lys	Cys	Leu	Ser	Leu	Thr	Leu	Glu	Trp
		115				120						125			
Leu	Ile	Leu	Leu	Lys	Trp	Glu	Ala								
	130					135									

<210> 5027

<211> 359

<212> DNA

<213> Homo sapiens

<400> 5027

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 180  
 tccgcgctct actgcaggcg cagctgatgc attgctggtc tctcatctgc agcttccaca  
 240

gagtgccaaag cccctcactc agcccatccc tgggctctgc tccggggccc caagaccag  
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 359

<210> 5028  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 5028  
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 20 25 30  
 Lys Thr His Lys Phe Ser Ala Gly Thr Tyr Pro Arg Leu Glu Glu Tyr  
 35 40 45  
 Arg Arg Gly Ile Leu Gly Asp Trp Ser Asn Ala Ile Ser Ala Leu Tyr  
 50 55 60  
 Cys Arg Cys Ser  
 65

<210> 5029  
 <211> 1440  
 <212> DNA  
 <213> Homo sapiens

<400> 5029  
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 ttcatgtgtg ctgatatttt tggatcattt gtttactcgt tttttgagtt tacctgattt  
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 240  
 gggtaacttta ttttagttgg attttctaatt tggccttate tggaagtagt tctctttgtg  
 300  
 gttattttga tcttctgctt gatgacactg ataggaaacc tgttcatcat catcctgacg  
 360  
 tacctggact cccatctcca tactcccttg tatttcttcc tttcaaactc ctcatttctg  
 420  
 gatctctgct acaccaccag ctctatccct cagttgctgg tcagtctctg ggggtgtggaa  
 480  
 aagaccattt cttatgctgg ttgcatgggt caactttact tttttctcac actgggaacc  
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 1440

&lt;210&gt; 5030

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5030

Met	Asn	Asp	Asp	Gly	Lys	Val	Asn	Ala	Ser	Ser	Glu	Gly	Tyr	Phe	Ile
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Leu	Val	Gly	Phe	Ser	Asn	Trp	Pro	Tyr	Leu	Glu	Val	Val	Leu	Phe	Val
		20						25					30		
Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
	35						40					45			
Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
	50					55					60				
Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
65				70						75				80	
Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
			85						90					95	
Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
		100					105						110		
Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
	130					135					140				
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
145				150						155				160	
Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
			165					170						175	
Ile	Asp	His	Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu				
			180					185							



<210> 5031  
 <211> 505  
 <212> DNA  
 <213> Homo sapiens

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<210> 5032  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 5032  
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 Ser Leu Gln Arg Ser Ala Arg Leu Ala Leu Glu Val Leu Glu Arg Ala  
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 Lys Arg Arg Ala Val Asp Trp His Ala Leu Glu Arg Pro Lys Gly Cys  
 35 40 45  
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala  
 50 55 60  
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro  
 65 70 75 80  
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr  
 85 90 95  
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly  
 100 105 110  
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
 115 120 125  
 Cys Leu Asp Ile Gly Asn Gly Gln Arg Lys Asp Arg Lys Lys Thr Ser  
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 Leu Gly Pro Gly Gly Ser Tyr Gln Ile Ser Glu His Ala Pro  
 145 150 155

<210> 5033  
 <211> 2888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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aaaaaaaa  
2888

&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

Xaa Asp Glu Asp Lys Glu Asp Asp Phe Arg Ala Pro Leu Tyr Lys Asn  
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 Val Asp Val Arg Gly Ile Gln Val Arg Met Lys Trp Cys Ala Thr Cys  
 20 25 30  
 His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn  
 35 40 45  
 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr  
 50 55 60  
 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala  
 65 70 75 80  
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
 100 105 110  
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
 130 135 140  
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln  
 165 170 175  
 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
 180 185 190  
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
 210 215 220  
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala  
 245 250 255  
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
 275 280 285  
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
 290 295 300  
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly  
 305 310 315 320  
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu  
 340 345 350  
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
 370 375 380  
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
 385 390 395 400  
 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr  
 405 410 415  
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

420 425 430  
 Leu Arg Tyr Gly Ser Arg Asp Asp Leu Val Ala Gly Pro Gly Phe Gly  
 435 440 445  
 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser  
 450 455 460  
 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp  
 465 470 475 480  
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr  
 485 490 495  
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro  
 500 505 510  
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly  
 515 520 525  
 Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser  
 530 535 540  
 Ala Glu Asp Ser Pro Lys  
 545 550

&lt;210&gt; 5035

&lt;211&gt; 2002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5035

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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

Arg	Pro	Cys	Gly	His	Ala	Met	Asp	Phe	Asn	Met	Lys	Lys	Leu	Ala	Ser
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Asp	Ala	Gly	Ile	Phe	Phe	Thr	Arg	Ala	Val	Gln	Phe	Thr	Glu	Glu	Lys
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Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
		35				40						45			
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
	50					55					60				
Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

65					70					75					80
Phe	Leu	Tyr	Glu	Lys	Leu	Asp	Arg	Lys	Val	Pro	Ser	Arg	Val	Thr	Asn
				85					90					95	
Gly	Glu	Leu	Leu	Ala	Gln	Tyr	Met	Ala	Asp	Ala	Ala	Ser	Glu	Leu	Gly
			100					105					110		
Pro	Thr	Thr	Pro	Tyr	Gly	Lys	Thr	Leu	Ile	Lys	Val	Ala	Glu	Ala	Glu
		115					120					125			
Lys	Gln	Leu	Gly	Ala	Ala	Glu	Arg	Asp	Phe	Ile	His	Thr	Ala	Ser	Ile
	130					135					140				
Ser	Phe	Leu	Thr	Pro	Leu	Arg	Asn	Phe	Leu	Glu	Gly	Asp	Trp	Lys	Thr
145					150					155					160
Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu	Asp
				165					170					175	
Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys	Ala
			180					185					190		
Thr	Leu	Trp	Asn	Asp	Glu	Val	Asp	Lys	Ala	Glu	Gln	Glu	Leu	Arg	Val
	195						200					205			
Ala	Gln	Thr	Glu	Phe	Asp	Arg	Gln	Ala	Glu	Val	Thr	Arg	Leu	Leu	Leu
	210					215					220				
Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His	Glu
225					230					235					240
Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His	Met
				245					250					255	
Leu	Asp	Leu	Gln	Lys	Gln	Leu	Gly	Ser	Ser	Gln	Gly	Ala	Ile	Ser	Arg
		260						265					270		
His	Leu	Arg	Gly	His	His	Arg	Ala	Arg	Leu	Pro	Pro	Leu	Ser	Ser	Thr
	275						280						285		
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val	Ala
	290					295					300				
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val	Ala
305					310					315					320
Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr	Glu
				325					330					335	
Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Leu	Ala	Asp	Glu	Leu	Ile	Thr
			340					345					350		
Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu	Arg
		355					360					365			
Gly	Asn	Lys	Lys	Gly	Lys	Val	Pro	Val	Thr	Tyr	Leu	Glu	Leu	Leu	Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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120

gtttgctgga gttgagggtc agccgtccct ctgcagggtg ggtaaccctc ctgttaacca

180

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480  
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660  
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1860



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 ca  
 2102

<210> 5038

<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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			20					25					30		
Ile	Cys	Lys	Gln	Ser	Met	Ser	Val	Ser	Lys	Glu	Tyr	Asn	Leu	Arg	Arg
	35					40						45			
His	Tyr	Gln	Thr	Asn	His	Ser	Lys	His	Tyr	Asp	Gln	Tyr	Thr	Glu	Arg
	50				55					60					
Met	Arg	Asp	Glu	Lys	Leu	His	Glu	Leu	Lys	Lys	Gly	Leu	Arg	Lys	Tyr
65				70					75					80	
Leu	Leu	Gly	Ser	Ser	Asp	Thr	Glu	Cys	Pro	Glu	Gln	Lys	Gln	Val	Phe
			85					90					95		
Ala	Asn	Pro	Ser	Pro	Thr	Gln	Lys	Ser	Pro	Val	Gln	Pro	Val	Glu	Asp
		100						105					110		
Leu	Ala	Gly	Asn	Leu	Trp	Glu	Lys	Leu	Arg	Glu	Lys	Ile	Arg	Ser	Phe
	115					120						125			
Val	Ala	Tyr	Ser	Ile	Ala	Ile	Asp	Glu	Ile	Thr	Asp	Ile	Asn	Asn	Thr
	130				135						140				
Thr	Gln	Leu	Ala	Ile	Phe	Ile	Arg	Gly	Val	Asp	Glu	Asn	Phe	Asp	Val
145				150					155					160	
Ser	Glu	Glu	Leu	Leu	Asp	Thr	Val	Pro	Met	Thr	Gly	Thr	Lys	Ser	Gly
			165					170					175		
Asn	Glu	Ile	Phe	Ser	Arg	Val	Glu	Lys	Ser	Leu	Lys	Lys	Phe	Cys	Ile
		180						185					190		
Asp	Trp	Ser	Lys	Leu	Val	Ser	Val	Ala	Ser	Thr	Gly	Thr	Pro	Ala	Met
	195					200						205			
Val	Asp	Ala	Asn	Asn	Gly	Leu	Val	Thr	Lys	Leu	Lys	Ser	Arg	Val	Ala
	210				215						220				
Thr	Phe	Cys	Lys	Gly	Ala	Glu	Leu	Lys	Ser	Ile	Cys	Cys	Ile	Ile	His
225				230					235					240	
Pro	Glu	Ser	Leu	Cys	Ala	Gln	Lys	Leu	Lys	Met	Asp	His	Val	Met	Asp
			245					250					255		
Val	Val	Val	Lys	Ser	Val	Asn	Trp	Ile	Cys	Ser	Arg	Gly	Leu	Asn	His
		260						265					270		
Ser	Glu	Phe	Thr	Thr	Leu	Leu	Tyr	Glu	Leu	Asp	Ser	Gln	Tyr	Gly	Ser
	275					280						285			
Leu	Leu	Tyr	Tyr	Thr	Glu	Ile	Lys	Trp	Leu	Ser	Arg	Gly	Leu	Val	Leu

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 Lys Arg Phe Phe Glu Ser Leu Glu Glu Ile Asp Ser Phe Met Ser Ser  
 305                      310                      315                      320  
 Arg Gly Lys Pro Leu Pro Gln Leu Ser Ser Ile Asp Trp Ile Arg Asp  
                     325                      330                      335  
 Leu Ala Phe Leu Val Asp Met Thr Met His Leu Asn Ala Leu Asn Ile  
                     340                      345                      350  
 Ser Leu Gln Gly His Ser Gln Ile Val Thr Gln Met Tyr Asp Leu Ile  
                     355                      360                      365  
 Arg Ala Phe Leu Ala Lys Leu Cys Leu Trp Glu Thr His Leu Thr Arg  
                     370                      375                      380  
 Asn Asn Leu Ala His Phe Pro Thr Leu Lys Leu Ala Ser Arg Asn Glu  
 385                      390                      395                      400  
 Ser Asp Gly Leu Asn Tyr Ile Pro Lys Ile Ala Glu Leu Lys Thr Glu  
                     405                      410                      415  
 Phe Gln Lys Arg Leu Ser Asp Phe Lys Leu Tyr Glu Ser Glu Leu Thr  
                     420                      425                      430  
 Leu Phe Ser Ser Pro Phe Ser Thr Lys Ile Asp Ser Val His Glu Glu  
                     435                      440                      445  
 Leu Gln Met Glu Val Ile Asp Leu Gln Cys Asn Thr Val Leu Lys Thr  
                     450                      455                      460  
 Lys Tyr Asp Lys Val Gly Ile Pro Glu Phe Tyr Lys Tyr Leu Trp Gly  
 465                      470                      475                      480  
 Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser Met Phe  
                     485                      490                      495  
 Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys Leu Ser  
                     500                      505                      510  
 Lys Thr Lys Tyr Cys Ser Gln Leu Lys Asp Ser Gln Trp Asp Ser Val  
                     515                      520                      525  
 Leu His Ile Ala Thr  
 530

&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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 ggggctaatag ccctcacgct gtctacgctg ctgcaaccgg gccgcatctg gacggggcgc  
 120  
 cgcgcgcgga gcgacgccgg gccagcaatg ctgcttgagg cctctctggt ggggggtgctg  
 180  
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 240  
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 300  
 gatattcttg gcggcctggt cctcctgaag gtgaaggcaa aggtgcgaca gtgcctgcag  
 360  
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&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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 20 25 30  
 Tyr Leu Gly Ser Gly Gly Trp Arg Phe Ile Arg Val Phe Ile Lys Thr  
 35 40 45  
 Ile Arg Arg Asp Ile Phe Gly Gly Leu Val Leu Lys Val Lys Ala  
 50 55 60  
 Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe  
 65 70 75 80  
 Ala Ser Thr Val Arg Arg His Pro Asp Lys Thr Ala Leu Ile Phe Glu  
 85 90 95  
 Gly Thr Asp Thr His Trp Thr Phe Arg Gln Leu Asp Glu Tyr Ser Ser  
 100 105 110  
 Ser Val Ala Asn Phe Leu Gln Ala Arg Gly Leu Ala Ser Gly Asp Val

115	120	125
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Gly Met Ala Lys Leu Gly Val Glu Ala Ala Leu Ile Asn Thr Asn Leu		
145	150	155
Arg Arg Asp Ala Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala		
165	170	175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala		
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Gly Ala Val Pro Pro Ser Thr Glu His Leu Asp Pro Leu Leu Lys Asp		
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Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys		
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Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala		
245	250	255
Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr		
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Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu		
275	280	285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His		
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Gly Met Thr Val Val Ile Arg Lys Lys Phe Ser Ala Ser Arg Phe Trp		
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Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu		
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Leu Cys Arg Tyr Leu Leu Asn Gln Pro Pro Arg Glu Ala Glu Asn Gln		
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His Gln Val Arg Met Ala Leu Gly Asn Ala Ser Gly Ser Pro Ser Gly		
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Pro Thr Phe Pro Ala Ala Ser Thr Tyr Pro Arg Trp Leu Ser Ser Thr		
370	375	380
Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly		
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Ala Cys Gly Phe Asn Ser Arg Ile Leu Ser Phe Val Tyr Pro Ile Arg		
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Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp		
420	425	430
Gly Val Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Gln Leu Val Gly		
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Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn		
450	455	460
Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly		
465	470	475
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly		
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Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly		
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Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu		
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Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu		
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Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp		

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 Arg Pro Ile Phe Leu Arg Leu Leu Pro Glu Leu His Lys Thr Gly Thr  
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<210> 5041  
 <211> 2461  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr

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35           40           45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
65           70           75           80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
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Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
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Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
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325          330          335
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385          390          395          400
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Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
420          425          430
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 485 490 495  
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 515 520 525  
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu  
 530 535 540  
 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His  
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 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile  
 565 570 575  
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 625 630 635 640  
 Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala  
 645 650 655  
 Ser Pro Glu Asp Val Gln Ala Leu Met Tyr Leu Arg Gly Gln Leu Glu  
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&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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1800  
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1824

&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

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<210> 5045
<211> 462
<212> DNA
<213> Homo sapiens
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 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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 Ser Leu Arg Leu Thr Ala Pro Ser Leu Trp Gly Gly Ser Val Ala Arg  
 35 40 45  
 Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro  
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<210> 5047  
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 <213> Homo sapiens

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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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Leu	Arg	Ala	Leu	Gln	Pro	Phe	Gln	Val	Gly	Asp	Leu	Leu	Phe	Ser
		20					25				30			
Pro	Ala	Tyr	Ala	Tyr	Val	Leu	Thr	Val	Asn	Glu	Arg	Gly	Asn	His
		35				40					45			
Glu	Tyr	Cys	Phe	Thr	Arg	Lys	Glu	Gly	Leu	Ser	Lys	Cys	Gly	Arg
	50					55				60				
Lys	Gln	Ala	Phe	Tyr	Cys	Asn	Val	Glu	Cys	Gln	Lys	Glu	Asp	Trp
65					70				75				80	
Met	His	Lys	Leu	Glu	Cys	Ser	Pro	Met	Val	Val	Phe	Gly	Glu	Asn
														Trp

85 90 95  
 Asn Pro Ser Glu Thr Val Arg Leu Thr Ala Arg Ile Leu Ala Lys Gln  
 100 105 110  
 Lys Ile His Pro Glu Arg Thr Pro Ser Glu Lys Leu Leu Ala Val Lys  
 115 120 125  
 Glu Phe Glu Ser His Leu Asp Lys Leu Asp Asn Glu Lys Lys Asp Leu  
 130 135 140  
 Ile Gln Ser Asp Ile Ala Ala Leu His His Phe Tyr Ser Lys His Leu  
 145 150 155 160  
 Glu Phe Pro Asp Asn Asp Ser Leu Val Val Leu Phe Ala Gln Val Asn  
 165 170 175  
 Cys Asn Gly Phe Thr Ile Glu Asp Glu Glu Leu Ser His Leu Gly Ser  
 180 185 190  
 Ala Ile Phe Pro Asp Val Ala Leu Met Asn His Ser Cys Cys Pro Asn  
 195 200 205  
 Val Ile Val Thr Tyr Lys Gly Thr Leu Ala Glu Val Arg Ala Val Gln  
 210 215 220  
 Glu Ile Lys Pro Gly Glu Glu Val Phe Thr Ser Tyr Ile Asp Leu Leu  
 225 230 235 240  
 Tyr Pro Thr Glu Asp Arg Asn Asp Arg Leu Arg Asp Ser Tyr Phe Phe  
 245 250 255  
 Thr Cys Glu Cys Gln Glu Cys Thr Thr Lys Asp Lys Asp Lys Ala Lys  
 260 265 270  
 Val Glu Ile Arg Lys Leu Ser Asp Pro Pro Lys Ala Glu Ala Ile Arg  
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 Asp Met Val Arg Tyr Ala Arg Asn Val Ile Glu Glu Phe Arg Arg Ala  
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 Lys His Tyr Lys Ser Pro Ser Glu Leu Leu Glu Ile Cys Glu Leu Ser  
 305 310 315 320  
 Gln Glu Lys Met Ser Ser Val Phe Glu Asp Ser Asn Val Tyr Met Leu  
 325 330 335  
 His Met Met Tyr Gln Ala Met Gly Val Cys Leu Tyr Met Gln Asp Trp  
 340 345 350  
 Glu Gly Ala Leu Gln Tyr Gly Gln Lys Ile Ile Lys Pro Tyr Ser Lys  
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 His Tyr Pro Leu Tyr Ser Leu Asn Val Ala Ser Met Trp Leu Lys Leu  
 370 375 380  
 Gly Arg Leu Tyr Met Gly Leu Glu His Lys Ala Ala Gly Glu Lys Ala  
 385 390 395 400  
 Leu Lys Lys Ala Ile Ala Ile Met Glu Val Ala His Gly Lys Asp His  
 405 410 415  
 Pro Tyr Ile Ser Glu Ile Lys Gln Glu Ile Glu Ser His  
 420 425

&lt;210&gt; 5049

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5049

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1740



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 2400  
 aaaaaaaaaa aaaaaaaaaa aa  
 2422

&lt;210&gt; 5050

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5050

Xaa	Ile	Phe	Ser	Gln	Arg	Ile	Ser	Pro	Ser	Ile	Asp	Tyr	Thr	Tyr	Asp
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Ser	Asp	Ile	Leu	Lys	Gly	Asn	Phe	Ser	Ile	Arg	Thr	Ala	Lys	Met	Gln
			20					25					30		
Gln	His	Val	Cys	Glu	Thr	Ile	Ile	Arg	Ile	Phe	Lys	Arg	His	Gly	Ala
		35					40					45			
Val	Gln	Leu	Cys	Thr	Pro	Leu	Leu	Leu	Pro	Arg	Asn	Arg	Gln	Ile	Tyr
		50				55					60				
Glu	His	Asn	Glu	Ser	Ala	Leu	Phe	Met	Asp	His	Ser	Gly	Met	Leu	Val
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Met	Leu	Pro	Phe	Asp	Leu	Arg	Ile	Pro	Phe	Ala	Arg	Tyr	Val	Ala	Arg
			85					90					95		
Asn	Asn	Ile	Leu	Asn	Leu	Lys	Arg	Tyr	Cys	Ile	Glu	Arg	Val	Phe	Arg
		100						105					110		
Pro	Arg	Lys	Leu	Asp	Arg	Phe	His	Pro	Lys	Glu	Leu	Leu	Glu	Cys	Ala
		115					120					125			
Phe	Asp	Ile	Val	Thr	Ser	Thr	Thr	Asn	Ser	Phe	Leu	Pro	Thr	Ala	Glu
	130					135					140				
Ile	Ile	Tyr	Thr	Ile	Tyr	Glu	Ile	Ile	Gln	Glu	Phe	Pro	Ala	Leu	Gln
145				150					155					160	
Glu	Arg	Asn	Tyr	Ser	Ile	Tyr	Leu	Asn	His	Thr	Met	Leu	Leu	Lys	Ala
			165					170					175		
Ile	Leu	Leu	His	Cys	Gly	Ile	Pro	Glu	Asp	Lys	Leu	Ser	Gln	Val	Tyr

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180      185      190
Ile Ile Leu Tyr Asp Ala Val Thr Glu Lys Leu Thr Arg Arg Glu Val
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Glu Ala Lys Phe Cys Asn Leu Ser Val Ser Ser Asn Ser Xaa Val Ser
210      215      220
Thr Leu Gln Xaa Leu Leu Asn Arg Arg Glu Ile Xaa Ala Arg Ser Tyr
225      230      235      240
Ala Asn Asn Xaa Asn Ser Leu Ile Lys Gln Lys Thr Gly Ile Ala Gln
245      250      255
Leu Val Lys Tyr Gly Leu Lys Asp Leu Glu Glu Val Val Gly Leu Leu
260      265      270
Lys Lys Leu Gly Ile Lys Leu Gln Val Leu Ile Asn Leu Gly Leu Val
275      280      285
Tyr Lys Val Gln Gln His Asn Gly Ile Ile Phe Gln Phe Val Ala Phe
290      295      300
Ile Lys Arg Arg Gln Arg Ala Val Pro Glu Ile Leu Ala Ala Gly Gly
305      310      315      320
Arg Tyr Asp Leu Leu Ile Pro Gln Phe Arg Gly Pro Gln Ala Leu Gly
325      330      335
Pro Val Pro Thr Ala Ile Gly Val Ser Ile Ala Ile Asp Lys Ile Ser
340      345      350
Ala Ala Val Leu Asn Met Glu Glu Ser Val Thr Ile Ser Ser Cys Asp
355      360      365
Leu Leu Val Val Ser Val Gly Gln Met Ser Met Ser Arg Ala Ile Asn
370      375      380
Leu Thr Gln Lys Leu Trp Thr Ala Gly Ile Thr Ala Glu Ile Met Tyr
385      390      395      400
Asp Trp Ser Gln Ser Gln Glu Glu Leu Gln Glu Tyr Cys Arg His His
405      410      415
Glu Ile Thr Tyr Val Ala Leu Val Ser Asp Lys Glu Gly Ser His Val
420      425      430
Lys Val Lys Ser Phe Glu Lys Glu Arg Gln Thr Glu Lys Arg Val Leu
435      440      445
Glu Thr Glu Leu Val Asp His Val Leu Gln Lys Leu Arg Thr Lys Val
450      455      460
Thr Asp Glu Arg Asn Gly Arg Glu Ala Ser Asp Asn Leu Ala Val Gln
465      470      475      480
Asn Leu Lys Gly Ser Phe Ser Asn Ala Ser Gly Leu Phe Glu Ile His
485      490      495
Gly Ala Thr Val Val Pro Ile Val Ser Val Leu Ala Pro Glu Lys Leu
500      505      510
Ser Ala Ser Thr Arg Arg Arg Tyr Glu Thr Gln Val Gln Thr Arg Leu
515      520      525
Gln Thr Ser Leu Ala Asn Leu His Gln Lys Ser Ser Glu Ile Glu Ile
530      535      540
Leu Ala Val Asp Leu Pro Lys Glu Thr Ile Leu Gln Phe Leu Ser Leu
545      550      555      560
Glu Trp Asp Ala Asp Glu Gln Ala Phe Asn Thr Thr Val Lys Gln Leu
565      570      575
Leu Ser Arg Leu Pro Lys Gln Arg Tyr Leu Lys Leu Val Cys Asp Glu
580      585      590
Ile Tyr Asn Ile Lys Val Glu Lys Lys Val Ser Val Leu Phe Leu Tyr
595      600      605
Ser Tyr Arg Asp Asp Tyr Tyr Arg Ile Leu Phe

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610

615

&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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Arg	Leu	Ile	Ser	Glu	Ile	Glu	Tyr	Arg	Leu	Glu	Arg	Ser	Pro	Val	Asp
			20					25					30		
Glu	Ser	Gly	Asp	Glu	Phe	Thr	Tyr	Gly	Asp	Val	Pro	Val	Glu	Asn	Gly
		35					40					45			
Met	Ala	Pro	Phe	Phe	Glu	Met	Lys	Leu	Lys	His	Tyr	Lys	Ile	Phe	Glu
	50					55				60					
Gly	Met	Pro	Val	Thr	Phe	Thr	Cys	Arg	Val	Ala	Gly	Asn	Pro	Lys	Pro

65                                      70                                      75                                      80  
 Lys Ile Tyr Trp Phe Lys Asp Gly Lys Gln Ile Ser Pro Lys Ser Asp  
    85                                      90                                      95  
 His Tyr Thr Ile Gln Arg Asp Leu Asp Gly Thr Cys Ser Leu His Thr  
    100                                      105                                      110  
 Thr Ala Ser Thr Leu Asp Asp Asp Gly Asn Tyr Thr Ile Met Ala Ala  
    115                                      120                                      125  
 Asn Pro Gln Gly Arg Ile Ser Cys Thr Gly Arg Leu Met Val Gln Ala  
    130                                      135                                      140  
 Val Asn Gln Arg Gly Arg Ser Pro Arg Ser Pro Ser Gly His Pro His  
    145                                      150                                      155                                      160  
 Val Arg Arg Pro Arg Ser Arg Ser Arg Asp Ser Gly Asp Glu Asn Glu  
    165                                      170                                      175  
 Pro Ile Gln Glu Arg Phe Phe Arg Pro His Phe Leu Gln Ala Pro Gly  
    180                                      185                                      190  
 Asp Leu Thr Val Gln Glu Gly Lys Leu Cys Arg Met Asp Cys Lys Val  
    195                                      200                                      205  
 Ser Gly Leu Pro Thr Pro Asp Leu Ser Trp Gln Leu Asp Gly Lys Pro  
    210                                      215                                      220  
 Val Arg Pro Asp Ser Ala His Lys Met Leu Val Arg Glu Asn Gly Val  
    225                                      230                                      235                                      240  
 His Ser Leu Ile Ile Glu Pro Val Thr Ser Arg Asp Ala Gly Ile Tyr  
    245                                      250                                      255  
 Thr Cys Ile Ala Thr Asn Arg Ala Gly Gln Asn Ser Phe Ser Leu Glu  
    260                                      265                                      270  
 Leu Val Val Ala Ala Lys Glu Ala His Lys Pro Pro Val Phe Ile Glu  
    275                                      280                                      285  
 Lys Leu Gln Asn Thr Gly Val Ala Asp Gly Tyr Pro Val Arg Leu Glu  
    290                                      295                                      300  
 Cys Arg Val Leu Gly Val Pro Pro Pro Gln Ile Phe Trp Lys Lys Glu  
    305                                      310                                      315                                      320  
 Asn Glu Ser Leu Thr His Ser Thr Asp Arg Val Ser Met His Gln Asp  
    325                                      330                                      335  
 Asn His Gly Tyr Ile Cys Leu Leu Ile Gln Gly Ala Thr Lys Glu Asp  
    340                                      345                                      350  
 Ala Gly Trp Tyr Thr Val Ser Ala Lys Asn Glu Ala Gly Ile Val Ser  
    355                                      360                                      365  
 Cys Thr Ala Arg Leu Asp Val Tyr Thr Gln Trp His Gln Gln Ser Gln  
    370                                      375                                      380  
 Ser Thr Lys Pro Lys Lys Val Arg Pro Ser Ala Ser Arg Tyr Ala Ala  
    385                                      390                                      395                                      400  
 Leu Ser Asp Gln Gly Leu Asp Ile Lys Ala Ala Phe Gln Pro Glu Ala  
    405                                      410                                      415  
 Asn Pro Ser His Leu Thr Leu Asn Thr Ala Leu Val Glu Ser Glu Asp  
    420                                      425                                      430  
 Leu

&lt;210&gt; 5053

&lt;211&gt; 781

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5053

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<211> 156

<212> PRT

<213> Homo sapiens

<400> 5054

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145

150

155

&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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			20					25					30		
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
		35					40					45			
Ile	Leu	Ser	Ala	Ser	Ser	Thr	Tyr	Phe	His	Gln	Leu	Phe	Ser	Val	Ala
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4242

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<211> 122  
 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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 Leu Arg Ala Trp Val Leu Val Ile Gly Ser Ala Pro Arg Ala Gly Cys  
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 Arg Leu Ser Leu Glu Lys Asp Ser Gln Leu Val Ser Leu Cys Ile His  
 65 70 75 80  
 Ala Leu Cys Pro Glu Arg Pro Ser Gln Ser Ala Arg Ala Val Ile Thr  
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 Arg Tyr His Ala Leu Gly Gly Leu Thr His Arg Glu Cys Leu Ser Val  
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&lt;210&gt; 5061

&lt;211&gt; 2462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5061

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2462

&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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          20           25           30
Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
          35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
          85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5064

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      35              40              45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
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Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65              70              75              80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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370

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20              25              30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35              40              45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50              55              60
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1260

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 2023

&lt;210&gt; 5068

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5068

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&lt;210&gt; 5070

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5070

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&lt;210&gt; 5072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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<212> PRT

<213> Homo sapiens

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<211> 444

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
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Arg	Glu	Thr	Glu	Val	Ile	Thr	Ala	Val	Leu	Glu	Leu	Gly	Arg	Gly	Gly
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<212> DNA

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&lt;210&gt; 5078

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5078

Met	Ala	Glu	Leu	Asn	Thr	His	Val	Asn	Val	Lys	Glu	Lys	Ile	Tyr	Ala
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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
		35					40					45			
Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
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Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
				85					90					95	
Gln	Pro	Gln	Pro	Pro	Gln	Ile	Gln	Asn	Gly	Pro	Met	Asn	Gly	Cys	Glu
			100					105					110		
Lys	Asp	Ser	Ser	Ser	Thr	Asp	Ser	Ala	Asn	Glu	Lys	Pro	Ala	Leu	Ile
	115						120					125			
Pro	Arg	Glu	Lys	Lys	Ile	Ser	Ile	Leu	Glu	Glu	Pro	Ser	Lys	Ala	Leu
	130					135						140			
Arg	Gly	Val	Thr	Glu	Gly	Asn	Arg	Leu	Leu	Gln	Gln	Lys	Leu	Ser	Leu
145					150					155				160	
Asp	Gly	Asn	Pro	Lys	Pro	Ile	His	Gly	Thr	Thr	Glu	Arg	Ser	Asp	Gly
				165					170					175	
Leu	Gln	Trp	Ser	Ala	Glu	Gln	Pro	Cys	Asn	Pro	Ser	Lys	Pro	Lys	Ala
			180					185					190		
Lys	Thr	Ser	Pro	Val	Lys	Ser	Asn	Thr	Pro	Ala	Ala	His	Leu	Glu	Ile
		195					200						205		
Lys	Pro	Asp	Glu	Leu	Ala	Lys	Lys	Arg	Gly	Pro	Asn	Ile	Glu	Lys	Ser
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				245					250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met

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Ala Glu Met Asp Lys Val Lys Glu Glu Ala Met Glu Ile Leu Thr Ala		
275	280	285
Arg Gln Lys Lys Ala Glu Glu Leu Lys Arg Leu Thr Asp Leu Ala Ser		
290	295	300
Gln Met Ala Glu Met Gln Leu Ala Glu Leu Arg Ala Glu Ile Lys His		
305	310	315
Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg		
325	330	335
Phe Ser Cys Asp Ile Glu Gln Leu Lys Ala Gln Ile Met Leu Cys Gly		
340	345	350
Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser		
355	360	365
Ser Leu Leu Pro Leu Leu Asn Ala His Ala Ala Thr Ser Gly Lys Gln		
370	375	380
Ser Asn Phe Ser Arg Lys Ser Ser Thr His Asn Lys Pro Ser Glu Gly		
385	390	395
Lys Ala Ala Asn Pro Lys Met Val Ser Ser Leu Pro Ser Thr Ala Asp		
405	410	415
Pro Ser His Gln Thr Met Pro Ala Asn Lys Gln Asn Gly Ser Ser Asn		
420	425	430
Gln Arg Arg Arg Phe Asn Pro Gln Tyr His Asn Asn Arg Leu Asn Gly		
435	440	445
Pro Ala Lys Ser Gln Gly Ser Gly Asn Glu Ala Glu Pro Leu Gly Lys		
450	455	460
Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg		
465	470	475
Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met		
485	490	495
Lys Thr Pro Glu Ala Pro Ala His Ser Glu Lys Pro Arg Arg Arg Gln		
500	505	510
His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly		
515	520	525
Arg Val Ser Gln Cys Asn Leu Cys Pro Thr Arg Ile Glu Val Ser Thr		
530	535	540
Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala		
545	550	555

&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

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 1338

&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

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 20 25 30  
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 35 40 45  
 Ile Pro Asp Val Asp Ile Asp Ser Asp Gly Val Phe Lys Tyr Val Leu  
 50 55 60  
 Ile Arg Val His Ser Ala Pro Arg Ser Gly Ala Pro Ala Ala Glu Ser  
 65 70 75 80  
 Lys Glu Ile Val Arg Gly Tyr Lys Trp Ala Glu Tyr His Ala Asp Ile

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Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu
      100      105      110
Cys Leu Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile
      115      120      125
His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys
      130      135      140
Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu
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Thr Arg Gly Pro Ser
      165

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<210> 5081  
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 <212> DNA  
 <213> Homo sapiens

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420
gccaacaggg atgaattcta cagccgaccc tccaagttag ctgacttctg ggggaacaac
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561

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<210> 5082  
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 <212> PRT  
 <213> Homo sapiens

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<400> 5082
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20      25      30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35      40      45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50      55      60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65				70				75				80			
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
			85					90					95		
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100				105						110		

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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 1856

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 <211> 396  
 <212> PRT  
 <213> Homo sapiens

<400> 5084  
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 20 25 30  
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 35 40 45  
 Arg Asn Leu Phe Ser Gln Thr Leu Ser Leu Gly Ser Gln Lys Glu Arg  
 50 55 60  
 Leu Leu Asp Glu Leu Thr Leu Glu Gly Val Ala Arg Tyr Met Gln Ser  
 65 70 75 80  
 Glu Arg Cys Arg Arg Val Ile Cys Leu Val Gly Ala Gly Ile Ser Thr  
 85 90 95  
 Ser Ala Gly Ile Pro Asp Phe Arg Ser Pro Ser Thr Gly Leu Tyr Asp  
 100 105 110  
 Asn Leu Glu Lys Tyr His Leu Pro Tyr Pro Glu Ala Ile Phe Glu Ile  
 115 120 125  
 Ser Tyr Phe Lys Lys His Pro Glu Pro Phe Phe Ala Leu Ala Lys Glu  
 130 135 140  
 Leu Tyr Pro Gly Gln Phe Lys Pro Thr Ile Cys His Tyr Phe Met Arg  
 145 150 155 160  
 Leu Leu Lys Asp Lys Gly Leu Leu Leu Arg Cys Tyr Thr Gln Asn Ile  
 165 170 175  
 Asp Thr Leu Glu Arg Ile Ala Gly Leu Glu Gln Glu Asp Leu Val Glu  
 180 185 190  
 Ala His Gly Thr Phe Tyr Thr Ser His Cys Val Ser Ala Ser Cys Arg  
 195 200 205  
 His Glu Tyr Pro Leu Ser Trp Met Lys Glu Lys Ile Phe Ser Glu Val

210	215	220
Thr Pro Lys Cys Glu Asp	Cys Gln Ser Leu Val	Lys Pro Asp Ile Val
225	230	235
Phe Phe Gly Glu Ser Leu	Pro Ala Arg Phe Phe	Ser Cys Met Gln Ser
245	250	255
Asp Phe Leu Lys Val Asp	Leu Leu Leu Val Met	Gly Thr Ser Leu Gln
260	265	270
Val Gln Pro Phe Ala Ser	Leu Ile Ser Lys Ala Pro	Leu Ser Thr Pro
275	280	285
Arg Leu Leu Ile Asn Lys	Glu Lys Ala Gly Gln Ser	Asp Pro Phe Leu
290	295	300
Gly Met Ile Met Gly Leu	Gly Gly Met Asp Phe	Asp Ser Lys Lys
305	310	315
Ala Tyr Arg Asp Val Ala	Trp Leu Gly Glu Cys	Asp Gln Gly Cys Leu
325	330	335
Ala Leu Ala Glu Leu Leu	Gly Trp Lys Lys Glu	Leu Glu Asp Leu Val
340	345	350
Arg Arg Glu His Ala Ser	Ile Asp Ala Gln Ser	Gly Ala Gly Val Pro
355	360	365
Asn Pro Ser Thr Ser Ala	Ser Pro Lys Lys Ser	Pro Pro Pro Ala Lys
370	375	380
Asp Glu Ala Arg Thr Thr	Glu Arg Glu Lys Pro	Gln
385	390	395

&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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<400> 5086  
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 Arg Leu Gly Ser Ile Ala Glu Ile Asp Leu Gly Val Pro Pro Pro Val  
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 Met Lys Thr Phe Lys Glu Phe Leu Leu Ser Leu Asp Asp Ser Val Asp  
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 Arg Gln Gln Met Gln Asp Phe Phe Leu Ala His Lys Asp Glu Glu Trp  
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 Glu Thr Gly Trp Phe Asp Asn Leu Leu Leu Asp Ile Asp Lys Ala Asp  
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 Thr Glu Asn Asp Leu Arg Ile Leu Glu Gln Glu Glu Glu Glu Gln  
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Thr Lys Lys Ser Glu Gly	Asp Gly Asp Lys Glu Glu	Lys Lys Glu Asp
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Lys Asp Ala Ala Gly Leu	Glu Cys Lys Pro Arg Pro	Leu His Lys Thr
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Cys Ser Leu Phe Met Arg	Asn Ile Ala Pro Asn Ile	Ser Arg Ala Glu
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Ile Ile Ser Leu Cys Lys	Arg Tyr Pro Gly Phe Met	Arg Val Ala Leu
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Ser Glu Pro Gln Pro Glu	Arg Arg Phe Phe Arg Arg	Gly Trp Val Thr
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Phe Asp Arg Ser Val Asn	Ile Lys Glu Ile Cys Trp	Asn Leu Gln Asn
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Thr Arg Arg Val Arg Asn	Ile Asn Gly Ile Thr Gln	His Lys Gln Ile
420	425	430
Val Arg Asn Asp Ile Lys	Leu Ala Ala Lys Leu Ile	His Thr Leu Asp
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Asp Arg Thr Gln Leu Trp	Ala Ser Glu Pro Gly Thr	Pro Pro Leu Pro
450	455	460
Thr Ser Leu Pro Ser Gln	Asn Pro Ile Leu Lys Asn	Ile Thr Asp Tyr
465	470	475
Leu Ile Glu Glu Val Ser	Ala Glu Glu Glu Glu Leu	Leu Gly Ser Ser
485	490	495
Gly Gly Ala Pro Pro Glu	Glu Pro Pro Lys Glu Gly	Asn Pro Ala Glu
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Ile Asn Val Glu Arg Asp	Glu Lys Leu Ile Lys Val	Leu Asp Lys Leu
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Leu Leu Tyr Leu Arg Ile	Val His Ser Leu Asp Tyr	Tyr Asn Thr Cys
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Glu Trp Gln Lys Thr Phe	Glu Glu Lys Leu Thr Pro	Leu Leu Ser Val
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Arg Glu Ser Leu Ser Glu	Glu Glu Ala Gln Lys Met	Gly Arg Lys Asp
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 Glu Glu Val Lys Lys Glu Val Ala Phe Phe Asn Asn Phe Leu Thr Asp  
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 Ala Lys Arg Pro Ala Leu Pro Glu Ile Lys Pro Ala Gln Pro Pro Gly  
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 Pro Ala Gln Ile Leu Pro Pro Gly Leu Thr Pro Gly Leu Pro Tyr Pro  
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 Gly Pro Pro Tyr Pro His Ala Pro Tyr Gly Ala Gly Arg Gly Asn Tyr  
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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

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Leu	Val	Gly	Gly	Ala	Gln	Gly	Glu	Gly	Gly	Trp	Ala	Ala	Gly	Asp	Lys
		20					25						30		
Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
		35					40					45			
Leu	Arg	Val	Glu	Leu	Thr	His	Gly	Ala	Glu	Thr	Leu	Thr	Leu	Trp	Gln
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Ser	Thr	Gly	Pro	Trp	Xaa	Pro	Trp	Xaa	Trp	Gln	Glu	Leu	Ala	Val	Thr
65				70					75					80	
Thr	Gly	Arg	Ile	Arg	Gly	Asp	Phe	Arg	Val	Thr	Phe	Ser	Ala	Thr	Arg
		85						90						95	
Asn	Ala	Thr	His	Arg	Gly	Ala	Val	Ala	Leu	Asp	Asp	Leu	Glu	Phe	Trp
		100					105					110			
Asp	Cys	Gly	Leu	Pro	Thr	Pro	Gln	Ala	Asn	Cys	Pro	Pro	Gly	His	His

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 His Cys Gln Asn Lys Val Cys Val Glu Pro Gln Gln Leu Cys Asp Gly  
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 Glu Asp Asn Cys Gly Asp Leu Ser Asp Glu Asn Pro Leu Thr Cys Gly  
 145 150 155 160  
 Arg His Ile Ala Thr Asp Phe Glu Thr Gly Leu Gly Pro Trp Asn Arg  
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 Ser Glu Gly Trp Ser Arg Asn His Arg Ala Gly Gly Pro Glu Arg Pro  
 180 185 190  
 Ser Trp Pro Arg Arg Asp His Ser Arg Asn Ser Ala Xaa Arg Leu Val  
 195 200 205  
 Phe Tyr Gln Tyr Leu Ser Gly Ser Glu Ala Gly Cys Leu Gln Leu Phe  
 210 215 220  
 Leu Gln Thr Leu Gly Pro Gly Ala Pro Arg Ala Pro Val Leu Leu Arg  
 225 230 235 240  
 Arg Arg Arg Gly Glu Leu Gly Thr Ala Trp Val Arg Asp Arg Val Asp  
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 Ile Gln Ser Ala Tyr Pro Phe Gln Ile Leu Leu Ala Gly Gln Thr Gly  
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 Pro Gly Gly Val Val Gly Leu Asp Asp Leu Ile Leu Ser Asp His Cys  
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 Arg Pro Val Ser Glu Val Ser Thr Leu Gln Pro Leu Pro Pro Gly Pro  
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 Arg Ala Pro Ala Pro Gln Pro Leu Pro Pro Ser Ser Arg Leu Gln Asp  
 305 310 315 320  
 Ser Cys Lys Gln Gly His Leu Ala Cys Gly Asp Leu Cys Val Pro Pro  
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 Glu Gln Leu Cys Asp Phe Glu Glu Gln Cys Ala Gly Gly Glu Asp Glu  
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 Gln Ala Cys Gly Thr Thr Asp Phe Glu Ser Pro Glu Ala Gly Gly Trp  
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 Glu Asp Ala Ser Val Gly Arg Leu Gln Trp Arg Arg Val Ser Ala Gln  
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 Glu Ser Gln Gly Ser Ser Ala Ala Ala Ala Gly His Phe Leu Ser Leu  
 385 390 395 400  
 Gln Arg Ala Trp Gly Gln Leu Gly Ala Glu Ala Arg Val Leu Thr Pro  
 405 410 415  
 Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr  
 420 425 430  
 Leu Gln Ser Gln Pro Arg Ala Gly Phe Val Gly Leu Val Asp Leu Asp  
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 Leu  
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&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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<210> 5090

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5090

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			20					25					30		
Asp	Ser	Ser	Pro	Gly	Phe	Ser	Lys	Glu	Ile	Ala	Ala	Ala	Leu	Ala	Gly
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Val	Pro	Gly	Phe	Glu	Val	Ser	Ala	Ala	Gly	Leu	Glu	Leu	Gly	Leu	Gly
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65					70				75					80	
Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Gly
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<210> 5091

<211> 3150

<212> DNA

<213> Homo sapiens

<400> 5091

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&lt;210&gt; 5092

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5092

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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala		320
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&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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&lt;210&gt; 5098

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5098

Met Ala Val Pro Gln Leu Gly Pro Ile Pro Val His Val Arg Thr Lys  
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 Gly Val Phe Ala Ile Met Leu Pro Thr Lys Ser Lys Glu Cys Trp Phe

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      35      40      45
Thr Glu Ser Arg Cys Val Ser Gln Ala Gly Val Gln Arg Gly Asp Leu
      50      55      60
Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu
      65      70      75      80
Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Val Pro Pro His Pro Ala
      85      90      95
Asn Phe Cys Ile Phe Ser Arg Asn Gly Val Ser Pro His Trp Pro Gly
      100      105      110
Trp Ser

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&lt;210&gt; 5099

&lt;211&gt; 801

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5099

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&lt;210&gt; 5100

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5100

Ala Cys Arg Arg Ala Arg Val Gly Glu Ala Asp Trp Val Leu Gly Leu  
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 Cys Asp Glu Ala Gly Thr Pro Val Gly Leu Gly Leu Leu Leu Glu Leu  
 20 25 30  
 Gly Pro Ser Ala Arg Pro Pro Pro Thr Pro Thr Trp Thr Gly Pro Gly  
 35 40 45  
 Leu Gly Thr Leu Ser Cys Val Lys Glu Asn Lys Gly Lys Glu Thr Ser  
 50 55 60  
 Leu Cys Ala Pro Ser Leu Pro Asn Lys His Glu Ser Asp Val Leu Gln  
 65 70 75 80  
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 85 90 95  
 Lys Lys Lys Lys Lys Lys  
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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 1711

&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

Met	Ala	Lys	Leu	Leu	Ser	Cys	Val	Leu	Gly	Pro	Arg	Leu	Tyr	Lys	Ile
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		20						25					30		
Pro	Thr	Ala	Val	Thr	Ala	Pro	His	Ser	Ser	Ser	Trp	Asp	Thr	Tyr	Tyr
		35				40						45			
Gln	Pro	Arg	Ala	Leu	Glu	Lys	His	Ala	Asp	Ser	Ile	Leu	Ala	Leu	Ala
	50					55					60				
Ser	Val	Phe	Trp	Ser	Ile	Ser	Tyr	Tyr	Ser	Ser	Pro	Phe	Ala	Phe	Phe
65				70					75					80	
Tyr	Leu	Tyr	Arg	Lys	Gly	Tyr	Leu	Ser	Leu	Ser	Lys	Val	Val	Pro	Phe
			85					90					95		
Ser	His	Tyr	Ala	Gly	Thr	Leu	Leu	Leu	Leu	Leu	Ala	Gly	Val	Ala	Cys
			100					105					110		
Leu	Arg	Gly	Ile	Gly	Arg	Trp	Thr	Asn	Pro	Gln	Tyr	Arg	Gln	Phe	Ile
		115					120					125			
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		130				135					140				
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145				150						155				160	
His	Trp	Glu	Glu	Pro	Ser	Ser	Arg	Lys	Glu	Ser	Arg	Gly	Gly	Pro	Ser



165 170 175  
 Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr  
 180 185 190  
 Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr  
 195 200 205  
 Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly  
 210 215 220  
 Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly  
 225 230 235 240  
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 245 250 255  
 Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly  
 260 265 270  
 Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn  
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 Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly  
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 Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly  
 305 310 315 320  
 Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln  
 325 330 335  
 Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr  
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 Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr  
 355 360 365  
 Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val  
 370 375 380  
 Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr  
 385 390 395 400  
 Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys  
 405 410 415  
 Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile  
 420 425 430  
 Ile Thr Thr Thr  
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&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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99  
1982

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<211> 167  
<212> PRT  
<213> Homo sapiens

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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
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Tyr Glu Arg Ala Met Cys Phe  
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<211> 1359  
<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 5106

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5106

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			20					25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40					45			
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50					55				60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65				70					75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90					95		
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
			100					105					110		
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

130					135					140					
Leu	Val	Asp	Ala	Asp	Gly	His	Val	Thr	Phe	Thr	Glu	Arg	Ser	Met	Met
145					150					155					160
Asp	Lys	Asp	Leu	Ser	His	Trp	Glu	Thr	Arg	Thr	Tyr	Glu	Phe	Thr	Leu
				165					170					175	

Gln Ser

&lt;210&gt; 5107

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5107

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<211> 83  
<212> PRT  
<213> Homo sapiens

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Phe Ile Tyr Leu Phe Arg Asp Arg Val Ser Leu Cys Arg Xaa Arg Gly  
20 25 30  
Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
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Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
65 70 75 80  
Ser Pro Cys

<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

<400> 5109  
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<210> 5110  
<211> 206  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5110

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Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp
      20           25           30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
      65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
      145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
      180          185          190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
      195          200          205

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&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

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540

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2160



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 2247

<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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Arg	Gly	Gly	Lys	Asp	Ala	Ser	Val	Ala	His	Glu	Val	Ala	Ser	Leu	Ala	20	25	30	
Leu	Pro	Trp	Phe	Ala	Val	Val	Leu	Gly	Tyr	Arg	Glu	Arg	Pro	Arg	Val	35	40	45	
Ser	Gly	Arg	Pro	Ser	Leu	Gly	Ala	Pro	Gln	Arg	Leu	Arg	Ala	Tyr	Gly	50	55	60	
Gly	Arg	Lys	Gly	Leu	Glu	Ala	Ala	Pro	Trp	Val	Thr	Thr	Ala	Arg	Pro	65	70	75	80
Thr	Phe	Pro	His	Val	Ala	Ala	Lys	Thr	Gly	Ser	Gly	Ala	Ser	Ile	Gly	85	90	95	
Cys	Thr	Pro	Thr	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala	100	105	110	
Gln	Glu	Thr	Phe	Asp	Ala	Ala	Val	Arg	Glu	Asn	Ile	Glu	Glu	Phe	Ala	115	120	125	
Met	Gly	Pro	Glu	Glu	Ala	Val	Lys	Glu	Ala	Val	Glu	Gln	Phe	Glu	Ser	130	135	140	
Gln	Gly	Val	Asp	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser	145	150	155	160
Ala	Asp	Gly	Ser	Gln	Glu	Pro	Thr	His	Asp	Ile	Leu	Gln	Met	Leu	Ser	165	170	175	
Asp	Leu	Gln	Glu	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala	180	185	190	
Tyr	Leu	Thr	Arg	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg	195	200	205	
Phe	Leu	Ala	Ala	Gln	Lys	Gly	Ala	Tyr	Pro	Ile	Ile	Phe	Thr	Ala	Arg	210	215	220	
Lys	Leu	Ala	Thr	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Leu	Gln	Ser	Leu	Asn	225	230	235	240
Ala	Leu	Ser	Val	Leu	Thr	Asp	Gly	Gln	Pro	Asp	Leu	Leu	Asp	Ala	Gln	245	250	255	
Gly	Leu	Gln	Leu	Leu	Val	Ala	Thr	Leu	Thr	Gln	Asn	Ala	Asp	Glu	Ala	260	265	270	
Asp	Leu	Thr	Cys	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys	275	280	285	
His	Glu	Gln	Asn	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu	290	295	300	
Leu	Thr	Gly	Ala	Ile	Thr	His	His	Gly	His	His	Thr	Asp	Val	Val	Arg	305	310	315	320
Glu	Ala	Cys	Trp	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg	325	330	335	
Val	Pro	Phe	Gly	His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu				

340 345 350  
 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp  
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 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala  
 370 375 380  
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 385 390 395 400  
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 420 425 430  
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly  
 435 440 445  
 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro  
 450 455 460  
 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg  
 465 470 475 480  
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala  
 485 490 495  
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys  
 500 505 510  
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe  
 515 520 525  
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala  
 530 535 540  
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg  
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 Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg  
 565 570 575  
 Gly Asn Leu Ala Pro  
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&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

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 120  
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 180  
 caagagggcc cctttgctaa tgtgcacagc tctttatgcc ttttttcta tgcctttttg  
 240  
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 300  
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 gcccaagtaa tgctctttac aaagtaggga aatacagata cataaaaaga agactgccaa  
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<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5114  
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 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
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 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
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 Thr Phe Phe Pro  
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<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

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<210> 5116  
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 <212> PRT  
 <213> Homo sapiens

<400> 5116  
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 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His  
 35 40 45  
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys  
 50 55 60  
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu  
 65 70 75 80  
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu  
 85 90 95  
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His  
 100 105 110  
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Glu Gly Pro  
 115 120 125  
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly  
 130 135 140  
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser  
 145 150 155 160  
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser  
 165 170 175  
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly  
 180 185 190  
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly  
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 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly  
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<210> 5117  
 <211> 1180  
 <212> DNA  
 <213> Homo sapiens

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 840  
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 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met	Ala	Glu	Ser	Glu	Asp	Arg	Ser	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys
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Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35					40				45				
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50					55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

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Ile Ser Arg Cys Ile Ile Ser Ser Cys Pro Gly Pro His Ala Ile Val						
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Leu Val Leu Leu Leu Gly Arg Tyr Thr Glu Glu Glu Gln Lys Thr Val						
	100		105		110	
Ala Leu Ile Lys Ala Val Phe Gly Lys Ser Ala Met Lys His Met Val						
	115		120		125	
Ile Leu Phe Thr Arg Lys Glu Glu Leu Glu Gly Gln Ser Phe His Asp						
	130		135		140	
Phe Ile Ala Asp Ala Asp Val Gly Leu Lys Ser Ile Val Lys Glu Cys						
	145		150		155	
Gly Asn Arg Cys Cys Ala Phe Ser Asn Ser Lys Lys Thr Ser Lys Ala						
	165		170		175	
Glu Lys Glu Ser Gln Val Gln Glu Leu Val Glu Leu Ile Glu Lys Met						
	180		185		190	
Val Gln Cys Asn Glu Gly Ala Tyr Phe Ser Asp Asp Ile Tyr Lys Asp						
	195		200		205	
Thr Glu Glu Arg Leu Lys Gln Arg Glu Glu Val Leu Arg Lys Ile Tyr						
	210		215		220	
Thr Asp Gln Leu Asn Glu Glu Ile Lys Leu Val Glu Glu Asp Lys His						
	225		230		235	
Lys Ser Glu Glu Glu Lys Glu Lys Glu Ile Lys Leu Leu Lys Leu Lys						
	245		250		255	
Tyr Asp Glu Lys Ile Lys Asn Ile Arg Glu Glu Ala Glu Arg Asn Ile						
	260		265		270	
Phe Lys Asp Val Phe Asn Arg Ile Trp Lys Met Leu Ser Glu Ile Trp						
	275		280		285	
His Arg Phe Leu Ser Lys Cys Lys Phe Tyr Ser Ser						
	290		295		300	

&lt;210&gt; 5119

&lt;211&gt; 1450

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5119

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120

cttcctgtct gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc

180

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300

attttttatt ttttgactct tgcaggaaat atggtcatag ttcttgtgtc cttgaaggat

360

ccaaaactcc acatccctat gtattttctt ctttccaacc tttccttggg agacctctgt

420

ttgaccagca gctgtgttcc acagatgttg attaacttct ggggccaga aaagaccatc

480

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540

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 720  
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 1020  
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 1080  
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&lt;210&gt; 5120

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5120

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Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
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Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

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Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp		
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&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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&lt;211&gt; 6244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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 <210> 5130  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens  
 <400> 5130  
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 20 25 30  
 Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
 35 40 45  
 Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
 50 55 60  
 Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
 65 70 75 80  
 Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly



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Val	Val	Gln	Ala	Ala	Trp	Met	Ser	Arg	Gln	Leu	Gly	Leu	Cys	Pro
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<210> 5131  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

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 300  
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 360  
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 420  
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 480  
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 caattgctga gaggcagtga ggacaagcag ctgcatgaac tgcacttgga gagaaacct  
 600  
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 660  
 gacagtgatg agcagagcca ccaggcagtg accgaggcca tgagggtcat cggcttcagt  
 720  
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 789

<210> 5132  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 5132  
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 Ile Gly Glu Val Leu Val Ser Val Asn Pro Tyr Gln Glu Leu Pro Leu  
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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65          70          75          80
Ala Gly Lys Thr Glu Ala Ser Lys His Ile Met Gln Tyr Ile Ala Ala
          85          90          95
Val Thr Asn Pro Ser Gln Arg Ala Glu Val Glu Arg Val Lys Asp Val
          100          105          110
Leu Leu Lys Ser Thr Cys Val Leu Glu Ala Phe Gly Asn Ala Arg Thr
          115          120          125
Asn Arg Asn His Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Asn
          130          135          140
Phe Asp Phe Lys Gly Asp Pro Ile Gly Gly His Ile His Ser Tyr Leu
145          150          155          160
Leu Glu Lys Ser Arg Val Leu Lys Gln His Val Gly Glu Arg Asn Phe
          165          170          175
His Ala Phe Tyr Gln Leu Leu Arg Gly Ser Glu Asp Lys Gln Leu His
          180          185          190
Glu Leu His Leu Glu Arg Asn Pro Ala Val Tyr Asn Phe Thr His Gln
          195          200          205
Gly Ala Gly Leu Asn Met Thr Val His Ser Ala Leu Asp Ser Asp Glu
          210          215          220
Gln Ser His Gln Ala Val Thr Glu Ala Met Arg Val Ile Gly Phe Ser
225          230          235          240
Pro Glu Glu Val Glu Ser Val His Arg Ile Leu Ala Ala Ile Leu His
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Leu Gly Asn Ile Glu Phe Val
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<210> 5133  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

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 tgaccgacca gacagaaatg ttcggcagcc tcaggaaggt ttttgaaaaa ggccacccca  
 180  
 gaggtggagt ggacaggagc attaccacct cagccaccct gaccactatc atcaccatgg  
 240  
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 581

<210> 5134

<211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 5134  
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 Gly Phe Trp Lys Arg Pro Pro Gln Arg Trp Ser Gly Gln Glu His Tyr  
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 His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu  
 35 40 45  
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser  
 50 55 60  
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val  
 65 70 75 80  
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val  
 85 90 95  
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu  
 100 105 110  
 Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser  
 115 120 125  
 Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn  
 130 135 140  
 Glu Asp Leu Leu Asn Glu Ile Lys Gln Leu Lys Asp Glu  
 145 150 155

<210> 5135  
 <211> 1696  
 <212> DNA  
 <213> Homo sapiens

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 1696

&lt;210&gt; 5136

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5136

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 Pro Ser Arg Arg Lys Ala Ala Gln Leu Pro Trp Glu Asp Gly Arg Ser  
 20 25 30  
 Gly Leu Leu Ser Gly Gly Leu Pro Arg Lys Cys Ser Val Phe His Leu  
 35 40 45  
 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln  
 50 55 60  
 Leu Ser Cys Ser Gly Asp Val Ala Arg Ala Val Arg Gly Gln Gly Gln  
 65 70 75 80  
 Glu Thr Ser Gly Pro Pro Arg Ala Cys Pro Pro Glu Pro Pro Pro Glu

85 90 95  
 His Trp Glu Glu Asp Ala Ser Trp Gly Pro His Arg Leu Ala Val Leu  
 100 105 110  
 Val Pro Phe Arg Glu Arg Phe Glu Glu Leu Leu Val Phe Val Pro His  
 115 120 125  
 Met Arg Arg Phe Leu Ser Arg Lys Lys Ile Arg His His Ile Tyr Val  
 130 135 140  
 Leu Asn Gln Val Asp His Phe Arg Phe Asn Arg Ala Ala Leu Ile Asn  
 145 150 155 160  
 Val Gly Phe Leu Glu Ser Ser Asn Ser Thr Asp Tyr Ile Ala Met His  
 165 170 175  
 Asp Val Asp Leu Leu Pro Leu Asn Glu Glu Leu Asp Tyr Gly Phe Pro  
 180 185 190  
 Glu Ala Gly Pro Phe His Val Ala Ser Pro Glu Leu His Pro Leu Tyr  
 195 200 205  
 His Tyr Lys Thr Tyr Val Gly Gly Ile Leu Leu Leu Ser Lys Gln His  
 210 215 220  
 Tyr Arg Leu Cys Asn Gly Met Ser Asn Arg Phe Trp Gly Trp Gly Arg  
 225 230 235 240  
 Glu Asp Asp Glu Phe Tyr Arg Arg Ile Lys Gly Ala Gly Leu Gln Leu  
 245 250 255  
 Phe Arg Pro Ser Gly Ile Thr Thr Gly Tyr Lys Thr Phe Arg His Leu  
 260 265 270  
 His Asp Pro Ala Trp Arg Lys Arg Asp Gln Lys Arg Ile Ala Ala Gln  
 275 280 285  
 Lys Gln Glu Gln Phe Lys Val Asp Arg Glu Gly Gly Leu Asn Thr Val  
 290 295 300  
 Lys Tyr His Val Ala Ser Arg Thr Ala Leu Ser Val Gly Gly Ala Pro  
 305 310 315 320  
 Cys Thr Val Leu Asn Ile Met Leu Asp Cys Asp Lys Thr Ala Thr Pro  
 325 330 335  
 Trp Cys Thr Phe Ser  
 340

&lt;210&gt; 5137

&lt;211&gt; 3090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5137

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 420

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 3090

&lt;210&gt; 5138

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5138

Met Glu Leu Glu Leu Asp Ala Gly Asp Gln Asp Leu Leu Ala Phe Leu  
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 Ala Pro Leu Asp Trp Ala Leu Pro Leu Ser Glu Val Pro Ser Asp Trp  
 35 40 45  
 Glu Val Asp Asp Leu Leu Cys Ser Leu Leu Ser Pro Pro Ala Ser Leu  
 50 55 60  
 Asn Ile Leu Ser Ser Ser Asn Pro Cys Leu Val His His Asp His Thr  
 65 70 75 80  
 Tyr Ser Leu Pro Arg Glu Thr Val Ser Met Asp Leu Glu Ser Glu Ser

85 90 95  
 Cys Arg Lys Glu Gly Thr Gln Met Thr Pro Gln His Met Glu Glu Leu  
 100 105 110  
 Ala Glu Gln Glu Ile Ala Arg Leu Val Leu Thr Asp Glu Glu Lys Ser  
 115 120 125  
 Leu Leu Glu Lys Glu Gly Leu Ile Leu Pro Glu Thr Leu Pro Leu Thr  
 130 135 140  
 Lys Thr Glu Glu Gln Ile Leu Lys Arg Val Arg Arg Lys Ile Arg Asn  
 145 150 155 160  
 Lys Arg Ser Ala Gln Glu Ser Arg Arg Lys Lys Lys Val Tyr Val Gly  
 165 170 175  
 Gly Leu Glu Ser Arg Val Leu Lys Tyr Thr Ala Gln Asn Met Glu Leu  
 180 185 190  
 Gln Asn Lys Val Gln Leu Leu Glu Glu Gln Asn Leu Ser Leu Leu Asp  
 195 200 205  
 Gln Leu Arg Lys Leu Gln Ala Met Val Ile Glu Ile Ser Asn Lys Thr  
 210 215 220  
 Ser Ser Ser Ser Thr Cys Ile Leu Val Leu Leu Val Ser Phe Cys Leu  
 225 230 235 240  
 Leu Leu Val Pro Ala Met Tyr Ser Ser Asp Thr Arg Gly Ser Leu Pro  
 245 250 255  
 Ala Glu His Gly Val Leu Ser Arg Gln Leu Arg Ala Leu Pro Ser Glu  
 260 265 270  
 Asp Pro Tyr Gln Leu Glu Leu Pro Ala Leu Gln Ser Glu Val Pro Lys  
 275 280 285  
 Asp Ser Thr His Gln Trp Leu Asp Gly Ser Asp Cys Val Leu Gln Ala  
 290 295 300  
 Pro Gly Asn Thr Ser Cys Leu Leu His Tyr Met Pro Gln Ala Pro Ser  
 305 310 315 320  
 Ala Glu Pro Pro Leu Glu Trp Pro Phe Pro Asp Leu Phe Ser Glu Pro  
 325 330 335  
 Leu Cys Arg Gly Pro Ile Leu Pro Leu Gln Ala Asn Leu Thr Arg Lys  
 340 345 350  
 Gly Gly Trp Leu Pro Thr Gly Ser Pro Ser Val Ile Leu Gln Asp Arg  
 355 360 365  
 Tyr Ser Gly  
 370

&lt;210&gt; 5139

&lt;211&gt; 1968

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5139

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 240  
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 300



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420  
ccagaaggct acaatctgaa agatgaggag ggccggctcc gggatcctgc caccatcaca  
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960  
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1920

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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val  
35 40 45  
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg  
50 55 60  
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe  
65 70 75 80  
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg  
85 90 95  
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp  
100 105 110  
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu  
115 120 125  
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr  
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Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val  
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Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile  
165 170 175  
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp  
180 185 190  
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe  
195 200 205  
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val  
210 215 220  
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr  
225 230 235 240  
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala  
245 250 255  
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser  
260 265 270  
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys  
275 280 285  
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val  
290 295 300  
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln  
305 310 315 320  
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp  
325 330 335  
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val  
340 345 350  
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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Thr Lys Arg Asp Val Thr Leu Glu Ala Ser Arg Glu Asn Ser Lys Pro
      370              375              380
Arg Ala Ile Leu Lys Pro Arg Lys Val Cys Val Gly Gly Lys Arg Arg
385              390              395              400
Lys Asp Glu Ile Ser Val Asp Ser Leu Asp Phe Ser Lys Lys Ile Leu
      405              410              415
His Thr Ala Trp His Pro Val Asp Asn Val Ile Ala Val Ala Ala Thr
      420              425              430
Asn Asn Leu Tyr Ile Phe Gln Asp Lys Ile Asn
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<210> 5141  
 <211> 928  
 <212> DNA  
 <213> Homo sapiens

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<210> 5142  
 <211> 227  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

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      20              25              30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
      35              40              45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
      50              55              60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
65              70              75              80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
      85              90              95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
      100             105             110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
      115             120             125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
      130             135             140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
145             150             155             160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
      165             170             175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
      180             185             190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
      195             200             205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
      210             215             220
Gln Val Leu
225

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&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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240
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420

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&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

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 Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp  
 20 25 30  
 Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu

35 40 45  
 Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys  
 50 55 60  
 Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala  
 65 70 75 80  
 Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp  
 85 90 95  
 Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys  
 100 105 110  
 Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu  
 115 120 125  
 Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met  
 130 135 140  
 Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser  
 145 150 155 160  
 Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile  
 165 170 175  
 Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val  
 180 185 190  
 Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro  
 195 200 205  
 Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr  
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&lt;210&gt; 5145

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5145

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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

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Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

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 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                      70                      75                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
 85                      90                      95  
 Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
 100                      105                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
 115                      120                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
 130                      135                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                      150                      155                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
 165                      170                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
 180                      185                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
 195                      200                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
 210                      215                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                      230                      235                      240  
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 245                      250                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
 260                      265                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
 275                      280                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
 290                      295                      300  
 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                      310

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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 2940  
 aaa  
 2943

&lt;210&gt; 5148

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5148

Ala	Arg	Leu	Phe	Asp	Glu	Pro	Gln	Leu	Ala	Ser	Leu	Cys	Leu	Asp	Thr
1				5					10					15	
Ile	Asp	Lys	Ser	Thr	Met	Asp	Ala	Ile	Ser	Ala	Glu	Gly	Phe	Thr	Asp
		20						25					30		
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
	35						40					45			
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50				55						60				
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90						95	
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100					105						110	
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg

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      115      120      125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130      135      140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145      150      155      160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165      170      175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180      185      190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195      200      205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210      215      220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225      230      235      240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245      250      255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260      265      270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
      275      280      285
Ile Pro Glu Ile Ile Phe Tyr Thr
      290      295

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<210> 5149  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

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<400> 5149
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120
gataacatcc ccaaagaaga aaaacatagg cgagaagagg aagctatgaa gcagataacc
180
cagtcctac cagaggacct cagaaaggag ctctatgaac tttgggaaga gtacgagacc
240
caatctagtg cagaagccaa atttgtgaag cagctagacc aatgtgaaat gattcttcaa
300
gcatctgaat atgaagacct tgaacacaaa cctgggagac tgcaagactt ctatgattcc
360
acagcaggaa aattcaatca ccctgagata gtccagcttg tttctgaact tgaggcagaa
420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
gtgcactcc tgtaacaaac attattttcc atttcattgt attgtgtttt gca
533

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<210> 5150  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5150

Xaa Arg Met Ala Val Met Ala Met Gly Ile Lys Asp Asp Arg Leu Asn  
 1 5 10 15  
 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys  
 20 25 30  
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
 130 135 140  
 Ile Ala Ala Ala Ala Ser Glu Pro His Ser  
 145 150

&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

nggtagtggg agatgtccgg ccggtctaag cgggagtctc gcgggtccac tcgcgggaag  
 60  
 cgagagtctg agtcgcgggg cagctccggg cgcgtcaagc gggagcgaga tcgggagcgg  
 120  
 gagcctgagg cggcgagctc ccggggcagc cctgtgcgcg tgaagcggga gttcgagccg  
 180  
 gcgagcgcgc gcgaggcccc ggcttctgtt gtcccgtttg tgcgggtgaa gcgggagcgc  
 240  
 gaggtcgatg aggactcgga gcctgagcgg gaggtgcgag caaagaatgg ccgagtggat  
 300  
 tctgaggacc ggaggagccg ccactgcctg tacctggaca ccattaacag gagtgtgctg  
 360  
 gactttgact ttgagaaact gtgttctatc tccctctcac acatcaatgc ttatgcctgt  
 420  
 ctggtgtgtg gcaagtactt tcaagctttt cacccttccc tacaggccgg ggtttgaagt  
 480  
 ctcacgccta cattcacagt gtccagttta gccaccatgt tttcctcaac ctccacaccc  
 540  
 tcaagtttta ctgccttcca gacaactatg agatcatcga ttcctcattg gaggatatca  
 600  
 cgtatgtgtt tgaagccac ttccacaaag cagcaaattg caaacttga caagcaagcc  
 660  
 aaattgtccc gggcatatga tggtagcact tacctgccgg gtattgtggg actgaataac  
 720  
 ataaaggcca atgattatgc caacgtgtc cttcaggctc tatctaattg tcctcctctc  
 780

cggaactact ttctggaaga agacaattat aagaacatca aacgtcctcc aggggatatac  
840  
atgttcttgt tgggtccagcg ttttgagagag ctgatgagaa agctctggaa ccctcgaaat  
900  
ttcaaggcac atgtgtctcc ccatgagatg cttcaggcag ttgtactttg cagtaagaag  
960  
actttttcaga tcaccaaaca aggagatggc gttgactttc tgtcttggtt tctgaatgct  
1020  
ctgcactcag ctctgggggg cacaaagaag aaaaagaaga ctattgtgac tgatgttttc  
1080  
caggggtcca tgaggatctt cactaaaaag cttcccatc ctgatctgcc agcagaagaa  
1140  
aaagagcagt tgctccataa tgacgagtag caggagacaa tgggtggagtc cacttttatg  
1200  
tacctgacgc tggaccttcc tactgcccc ctctacaagg acgagaagga gcagctcatc  
1260  
attccccaag tgccactctt caacatcctg gctaagttca atggcatcac tgagaaggaa  
1320  
tataagactt acaaggagaa ctttctgaag cgcttcacgc ttaccaagtt gcctccatat  
1380  
ctaattttt gtatcaagat attcactaag aacaacttct ttgttgagaa gaatccaact  
1440  
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1500  
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1560  
ctccgagggc tectaccgga tccacgtgct tcatcatggg acaggcaaatt ggtatgaatt  
1620  
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1680  
tcagatttgg aagaggcgag ataatgatga aaccaaccag cagggggctt gaaggaggcg  
1740  
tctagggtt tgctcccaag ggctgtggct gatgatggta aataagaaca cagaagctgt  
1800  
agctgaacac aggctggctg gtgggttcc taggccagcc cagcttgat gggttctggc  
1860  
tacaccagag caccaagagc ccacttgctt gggatggccc cacactgtca ctcagttgtt  
1920  
ctttgatcat ttttttctag attgatgctc ctttctccca tgcattgagc tcccatctag  
1980  
cttcagcagg gcagaaccct tctccagatg tgtgtaactt atgtcttgag tatctgggag  
2040  
tagttgaaga acagataatt ccttccaaac atcaagcctt gggattcttg gagcaagcag  
2100  
aaagccagta acttcgctct gttagagggtg gaggattttc ctatgggtcc cccattttc  
2160  
tgatttgat ttttagatgg attaaaatgt ctctgtttt taaaaaaaaa aaaaaaaaaa  
2220  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa  
2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5152

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Met Phe Ser Ser Thr Ser Thr Pro Ser Ser Phe Thr Ala Phe Gln Thr
 1           5           10           15
Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
      20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
      35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
      50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
      65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
      85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
      100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
      115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
      130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
      145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
      165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
      180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
      195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
      210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
      225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
      245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
      260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
      275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
      290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
      305          310          315          320
Arg Ile Leu Val

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<210> 5153

<211> 640

<212> DNA

<213> Homo sapiens

<400> 5153

```

nngctagcag gagaggagga ggtagatctc attgtacaca tccgtcttct ggagagaaca
60

```

acctctccta ccattcccttc cttctacacc ttctctgcct gtcattagggtg gctgcaggag  
 120  
 ggggtccacgt tgggaggggac aggtgagctg gcctttgggtg ctgacacact cctgactttg  
 180  
 ccctttctcc tgcaggggggt gccattcccg cagaatgagg ctaatgccat ggatgtgggtg  
 240  
 gtccagtttg ccattccaccg cctgggcttc cagccccagg acatcatcat ctacgcctgg  
 300  
 tccatcggtg gcttcactgc cacgtgggca gccatgtcct acccagatgt tagtgccatg  
 360  
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 420  
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 480  
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 540  
 ggaggactcc ttgtctggg ggcctcagtt ttctttctcc gtgaatagtg aggaccttta  
 600  
 tggtgggcaa gggctttgtc tctgccatcc cttcacgcgt  
 640

&lt;210&gt; 5154

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5154

Xaa	Leu	Ala	Gly	Glu	Glu	Glu	Val	Asp	Leu	Ile	Val	His	Ile	Arg	Leu
1			5					10						15	
Leu	Glu	Arg	Thr	Thr	Ser	Pro	Thr	Ile	Pro	Ser	Phe	Tyr	Thr	Phe	Ser
		20					25						30		
Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Gly	Thr	Gly
		35				40					45				
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu	Leu
	50					55				60					
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val	Val
65					70				75					80	
Val	Gln	Phe	Ala	Ile	His	Arg	Leu	Gly	Phe	Gln	Pro	Gln	Asp	Ile	Ile
			85					90					95		
Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala	Met
		100					105					110			
Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp	Asp
		115					120					125			
Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu	Cys
	130					135					140				
Ser	Ser	Gln	Ala	Cys	Pro	Ser	Trp	Glu	Gly	Val	Gly	Trp	Asn	Trp	Glu
145					150				155					160	
Leu	Phe														

&lt;210&gt; 5155

&lt;211&gt; 1402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 5155  
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acccgcgaaa tgatgggata gcgttgcaaa tccttaaaag agtcttaacg aaatcctggc  
120  
tgacattgac ttctccactg caaccatcga gttcattgtc tcctaaacct tgccatggag  
180  
gcctgtggca cctgagccag ccattatcat caccagcact tccatgagct acaagctgga  
240  
cccactgcag tcctcctgac aactgaaat cagagcctgc acacagagca gcagatgctt  
300  
caatgtaaag gtcatttcca ggtccttgac aggcgtgcat ctgggccaga tccatggcaa  
360  
taaccttcag gttgaggcta gagggttca gatgggcagc ttcgaatgac aggagcaagg  
420  
aacaagaggc cggaaaggga ggggtgacatt ttcagcatct ataagatcaa ctttagaaat  
480  
atttgggggt tgacaaattc ccatcaagct ctgtggatct tgtacaacta ctcaccaccg  
540  
gcttctcctc agcacatgat tgggtgcaggg ttctgaggat gattttgaga tgttccctga  
600  
tgtggtcttg tgaggagatt tcatgacgga tggcaggaaa cttcgtggag agatttctga  
660  
agacactcct gagctcccaa caccgggcaa ctctcttcca gaggatattg ggggtggagg  
720  
tagaagagag gcaaagtcag gtttgtcttc ggatccccct tcattctccc tttttccac  
780  
cgtaaacc aa ctttggtta cagttagaca ccagttttcg gcagatgaaa tccctctgat  
840  
ttcaggcatt ttgtcaatta agctgctcag caacaatagg ataaacttat gaaaagaaag  
900  
gagtagcagt cccacagaca aagcatccag ccctgcact gagacagtat agggaaggga  
960  
cttggtcctg gcagacagga cagataatca acatcctagt gggccttaca catgtgggca  
1020  
tattcttttc cataccttct tgtctgtttt aacaagctaa cccagtcac agtagcagag  
1080  
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1140  
aagaacctaa ccatttctct ctttcagcta tgtgttccaa gattactgaa gcaggattct  
1200  
ggccttcttg ataagaacat gaccagatcc agctgggttg caacaagatg aacttcagt  
1260  
ctgagcttcc accaagtttt tctcactaca atctcattgt aataactaaa tctccacca  
1320  
agatggagggt tatctgccat tttctgtact ctgctccgtt gtgctgctag agccacaagc  
1380  
ctattaaact ttgcctgaaa ta  
1402

<210> 5156

<211> 118

<212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5156

Met Asp Leu Ala Gln Met His Ala Cys Gln Gly Pro Gly Asn Asp Leu  
 1 5 10 15  
 Tyr Ile Glu Ala Ser Ala Ala Leu Cys Ala Gly Ser Asp Phe Ser Val  
 20 25 30  
 Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly  
 35 40 45  
 Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu  
 50 55 60  
 Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln  
 65 70 75 80  
 Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe  
 85 90 95  
 Arg Gly Leu Leu Glu Ser Cys Met Phe Gly Cys Arg Ala Arg Val Thr  
 100 105 110  
 Arg Asn Phe Trp Thr Leu  
 115

&lt;210&gt; 5157

&lt;211&gt; 1310

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5157

tgatcagaaa ttacctttga cgtgcagtga cagttgattt cctcttgaac tgccgggtgaa  
 60  
 aacagtctag tacacaggtg ctgtcagccc aggggtgggag caggaaatga ttgctgagcc  
 120  
 cggggcaggg gaattgcac tgcaggaaaag agatgcagca tgctcctcac tctgagtg  
 180  
 ccacctgtcc tgcttctctg caggtgaaaa ctctggggga tgctgatcaa tagagcttgg  
 240  
 tccaagctc tactgggccc ttggaggtag caaggccact ggggttgctat cctcttgctg  
 300  
 gggatagcaa cactgggtt gcaaccactg ggttgctatc cttttgctat cctcttgctc  
 360  
 atgaccagcc atatggtgag gctggggagt tcacatcctc aggcaggaac tagcagttgt  
 420  
 ttatccagca atgcctcaag gatgttgcat tgctcccagg agctggctat taggtatgtc  
 480  
 ttgtgcggtc agtcagcatc acagacacat agatgctcac cagcctggct tagctgggac  
 540  
 ctaaattctt tggtgaaaag cttttcacta agtgagggtc cttccctgca aatgctgaat  
 600  
 ctagcctaata tcgcaaccac acagaatttc atggctttca aaggcttgcc atgtgcccc  
 660  
 tctcattcta tactcacatc ccatggaggt gaggattttc acttcttttc tctagacttg  
 720  
 gaagctgaga ttcagagagg aagcatccct tgtgcaagat cacatagtca ggaggtgaca  
 780  
 cagggtctaa acttgaacca aggccttaag aggattttt cttttcagag tctcttcctc  
 840

gtccatttct gtgactaagc tgtgcagagg ttgacagcag ggcaagttat attgatattc  
 900  
 atcctttata ggcttcctgc taaaaagctt ctgagattgt ggtcttccaa aaaaaatagg  
 960  
 agcttggttg aagtccccac attttcaagc actcagtgtt ctgcctctgc gaactgtgct  
 1020  
 aacagctcag tgctgtcctg ggagtcctct gactcagaac cctcgaagca tcctgcattg  
 1080  
 tctttacca ccatcatctt cactaagaga aacatgccta cccatgaagg cgtgtttgat  
 1140  
 tactccaggc ttctggacac acatacccat ggggtgatttt tgctcctcag gcccaatatt  
 1200  
 ctcagacagc ccagcagtgt gaacacacaa tgccaggcca ggggaactggg gaccaccatc  
 1260  
 ttgctgatgg gaagggaaca acaggtggcc cagggacatg ctcttgcata  
 1310

<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

Met	Thr	Ser	His	Met	Val	Arg	Leu	Gly	Ser	Ser	His	Pro	Gln	Ala	Gly
1				5				10					15		
Thr	Ser	Ser	Cys	Leu	Ser	Ser	Asn	Ala	Ser	Arg	Met	Leu	His	Cys	Ser
			20				25					30			
Gln	Glu	Leu	Ala	Ile	Arg	Tyr	Val	Leu	Cys	Gly	Gln	Ser	Ala	Ser	Gln
		35				40					45				
Thr	His	Arg	Cys	Ser	Pro	Ala	Trp	Leu	Ser	Trp	Asp	Leu	Asn	Leu	Leu
	50					55				60					
Val	Lys	Ser	Phe	Ser	Leu	Ser	Glu	Val	Pro	Ser	Leu	Gln	Met	Leu	Asn
65					70					75				80	
Leu	Ala														

<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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 120  
 gcaaaagtga tcaggaaga tttcctgatg gaggggggag tccaaccggg gtcttcttgg  
 180  
 atagtagcat ttgagtagtg tttaaaaaat aaataaataa aaggagcacg tgagaagtaa  
 240  
 agttgcattt ctggacatga gagcagtgtt gtgaaactta gatgatgcat atagagaagg  
 300  
 cagcgagtgt gtttgaggat agtgagcgaa cagtttgtct gttcacggac atctgtccag  
 360

agtggcaagc acatagtggg taaccagaat gggcctcttc cctttccttt ttggttacc  
420  
cacaactcag tataggtact gactgccaaa tctccacatt tgtatatttc ttagcgta  
480  
gaaggcgatc tcttccaccg gctgtggcac atcatgaatg aaatcctgga cctgaggcgg  
540  
caggtgctgg tgggccacct caccacgac cggatgaagg acgtgaagcg ccacattact  
600  
gcccggcttg actggggcaa tgaacaactg ggactggacc tggcgcctag gaaagagtac  
660  
gcaatggtgg atccggaaga catcagcatt actgagctct accgattgtc catgctgac  
720  
atgtttttgt tggggggtgt cattcagatg gaacatcgac atcggaagaa agacaccccg  
780  
gtgcaggcca gcagtcacca cctctttgtc cagatgaaga gcctcatgtg ttccaacctg  
840  
ggagaggagc tggaggtcat cttctcactc tttgacagta aagagaaccg gccaatcagt  
900  
gagagatttt tcttgaggct gaatgaaac gggcttccca aagcccctga taaaccggaa  
960  
cgacattgct ccctctttgt ggatttgggc agcagtgagc taagaaagga catttatatc  
1020  
accgtgcaca ttatccgaat cggtcgaatg ggagcaggag aaaaaagaa tgcctgtagt  
1080  
gtccagtacc gacgaccctt tggctgtgca gttcttagca tcgctgacct gctaacagga  
1140  
gagacaaagg atgacctcat tctgaaagta tacatgtgta acacagagag tgagtggtag  
1200  
caaatccatg agaacatcat caaaaagctg aatgcacgtt ataacttgac tggctccaat  
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&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

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				20				25					30		
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu

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 Tyr Ala Met Val Asp Pro Glu Asp Ile Ser Ile Thr Glu Leu Tyr Arg  
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 His Arg His Arg Lys Lys Asp Thr Pro Val Gln Ala Ser Ser His His  
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 Pro Asp Lys Pro Glu Arg His Cys Ser Leu Phe Val Asp Leu Gly Ser  
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 Ser Glu Leu Arg Lys Asp Ile Tyr Ile Thr Val His Ile Ile Arg Ile  
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 Gly Glu Thr Lys Asp Asp Leu Ile Leu Lys Val Tyr Met Cys Asn Thr  
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 Glu Ser Glu Trp Tyr Gln Ile His Glu Asn Ile Ile Lys Lys Leu Asn  
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 Asp Thr Thr Arg Tyr Leu Lys Leu Pro Phe Ser Lys Gly Ile Phe Leu  
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 Thr Ser Phe Leu Cys Ser Thr Lys Leu Thr Gln Asn Gly Asp Met Leu

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 Ser Lys Leu Lys Glu Ile Asp Gly Ser Glu Ile Val Lys Phe Leu Gln  
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 Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys  
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 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu  
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 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val  
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 Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His  
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 Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val  
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 Glu Phe Arg Cys Cys Ile Gln Glu Leu Leu Met Ser Val Arg Phe Phe  
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    660                                      665                                      670  
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    675                                      680                                      685  
 Leu Pro Thr Ile Leu His Val Asp Asp Ser Leu Gln Ala Ile Lys Leu  
    690                                      695                                      700  
 Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp  
 705                                      710                                      715                                      720  
 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His  
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 Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn  
    740                                      745                                      750  
 Val Phe Cys Leu Ile Lys Lys Asn Ser Ser Glu Lys Ser Val Leu Glu  
    755                                      760                                      765  
 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr  
    770                                      775                                      780  
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg  
 785                                      790                                      795                                      800  
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser  
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 Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser  
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&lt;210&gt; 5161

&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 <211> 207  
 <212> PRT  
 <213> Homo sapiens

<400> 5162  
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 35 40 45  
 Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly  
 50 55 60  
 Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser  
 65 70 75 80  
 His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val  
 85 90 95  
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys  
 100 105 110  
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val  
 115 120 125  
 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn  
 130 135 140  
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp  
 145 150 155 160  
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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		20					25					30			
Arg	His	Trp	Ala	Trp	Ser	Gly	Asp	Thr	Phe	Ser	Gly	Gln	Phe	Val	Leu
		35				40					45				
Gly	Glu	Pro	Gln	Gly	Tyr	Gly	Val	Met	Glu	Tyr	Lys	Ala	Gly	Gly	Cys
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Tyr	Glu	Gly	Glu	Val	Ser	His	Gly	Met	Arg	Glu	Gly	His	Gly	Phe	Leu
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Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
			85				90						95		
Arg	His	Gly	Pro	Gly	Gln	Met	Leu	Phe	Gln	Asn	Gly	Asp	Lys	Tyr	Asp
		100				105					110				
Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
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 Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu  
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 Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu  
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 Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn  
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<210> 5165

<211> 2370

<212> DNA

<213> Homo sapiens

<400> 5165

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 2370

&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

Met	Asp	Pro	Ala	Gly	Ala	Ala	Asp	Pro	Ser	Val	Pro	Pro	Asn	Pro	Leu
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Thr	His	Leu	Ser	Leu	Gln	Asp	Arg	Ser	Glu	Met	Gln	Leu	Gln	Ser	Glu

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 His Thr Thr Ile Leu Arg Gly Gly Val Arg Arg Cys Leu Gln Gln Gln  
 50 55 60  
 Cys Glu Gln Thr Val Arg Ile Leu His Ala Lys Val Ala Gln Lys Ser  
 65 70 75 80  
 Tyr Gly Asn Glu Lys Arg Phe Phe Cys Pro Pro Pro Cys Val Tyr Leu  
 85 90 95  
 Ser Gly Pro Gly Trp Arg Val Lys Pro Gly Gln Asp Gln Ala His Gln  
 100 105 110  
 Ala Gly Glu Thr Gly Pro Thr Val Cys Gly Tyr Met Gly Leu Asp Ser  
 115 120 125  
 Ala Ser Gly Ser Ala Thr Glu Thr Gln Lys Leu Asn Phe Glu Gln Gln  
 130 135 140  
 Pro Asp Ser Arg Glu Phe Gly Cys Ala Lys Thr Leu Tyr Ile Ser Asp  
 145 150 155 160  
 Ala Asp Lys Arg Lys His Phe Arg Leu Val Leu Arg Leu Val Leu Arg  
 165 170 175  
 Gly Gly Arg Glu Leu Gly Thr Phe His Ser Arg Leu Ile Lys Val Ile  
 180 185 190  
 Ser Lys Pro Ser Gln Lys Lys Gln Ser Leu Lys Asn Thr Asp Leu Cys  
 195 200 205  
 Ile Ser Ser Gly Ser Lys Val Ser Leu Phe Asn Arg Leu Arg Ser Gln  
 210 215 220  
 Thr Val Ser Thr Arg Tyr Leu Ser Val Glu Asp Gly Ala Phe Val Ala  
 225 230 235 240  
 Ser Ala Arg Gln Trp Ala Ala Phe Thr Leu His Leu Ala Asp Gly His  
 245 250 255  
 Ser Ala Gln Gly Asp Phe Pro Pro Arg Glu Gly Tyr Val Arg Tyr Gly  
 260 265 270  
 Ser Leu Val Gln Leu Val Cys Thr Val Thr Gly Ile Thr Leu Pro Pro  
 275 280 285  
 Met Ile Ile Arg Lys Val Ala Lys Gln Cys Ala Leu Leu Asp Val Asp  
 290 295 300  
 Glu Pro Ile Ser Gln Leu His Lys Cys Ala Phe Gln Phe Pro Gly Ser  
 305 310 315 320  
 Pro Pro Gly Gly Gly Gly Thr Tyr Leu Cys Leu Ala Thr Glu Lys Val  
 325 330 335  
 Val Gln Phe Gln Ala Ser Pro Cys Pro Lys Glu Ala Asn Arg Ala Leu  
 340 345 350  
 Leu Asn Asp Ser Ser Cys Trp Thr Ile Ile Gly Thr Glu Ser Val Glu  
 355 360 365  
 Phe Ser Phe Ser Thr Ser Leu Ala Cys Thr Leu Glu Pro Val Thr Pro  
 370 375 380  
 Val Pro Leu Ile Ser Thr Leu Glu Leu Ser Gly Gly Gly Asp Val Ala  
 385 390 395 400  
 Thr Leu Glu Leu His Gly Glu Asn Phe His Ala Gly Leu Lys Val Trp  
 405 410 415  
 Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Tyr Gly Val Xaa Ser  
 420 425 430  
 Pro Arg Ser Leu Val Cys Val Val Pro Asp Val Ala Ala Phe Cys Ser  
 435 440 445  
 Asp Trp Arg Trp Leu Arg Ala Pro Ile Thr Ile Pro Met Ser Leu Val

450		455		460											
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr
465				470						475					480
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala
				485						490					495
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg
			500					505					510		
Thr	Asn	Phe	His	Leu	Phe	Ile	Gln	Thr							
	515					520									

<210> 5167  
 <211> 878  
 <212> DNA  
 <213> Homo sapiens

<400> 5167  
 gggccccgga ccaggcgctg gggacacagc agtgaaaata ctaacattgt ttctgcctc  
 60  
 acggagctca cagtgttaaca gggagacaaa tagacctgtc agtagataac atgaaaataa  
 120  
 ttggactgtg tgctgcagac acaatatccc aggtctatga gaatgtcaat acagacttca  
 180  
 cgtgggaaat ggtgaggcaa taaggatcgt ttcctttgat gaaatggagc ttgcagaaga  
 240  
 aggcagggtc agttgtgggg agctctgggt ggaggtggag ggagtgcatt ccaagctgag  
 300  
 ccaagctatg acacctgagt ttcctgcctc tgtgctgcct ccctgttttc cattcccgg  
 360  
 tctcagcttc acttgtgggc tgagagtccc tgcgtgggtt atttttctgc ctttctcagg  
 420  
 gccttgggtt ccccaaagt cacaatgggca cagtaacacc catgtcctag ggttgaagat  
 480  
 ggcattgat gatgtatgta aaatgcttgg cacaagggtt ctcaccgaag tctggaggag  
 540  
 ctgtccaggg ttctggagac gaaacggagc ccgctgggaa ctgtcctgag ccccggtgct  
 600  
 gaaacagatc gcggttctct tctcggacct cccgagaggc gctgtccgga tatttggtgc  
 660  
 tccaagcag tcagccctgc tggctctctgc tttccagacc gtcaaacttc gccatctctg  
 720  
 tccctttttg ggaaaatgtc catgcgcca cctgcaaacc agcctcattc ccggcatccc  
 780  
 acgtccctca gaccaccct cctcccacgc agctgaggga cccccctct gtgtgcctca  
 840  
 cctgcttcca gtcttgttgg cagatgcagg tgtcccg  
 878

<210> 5168  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 5168  
 Met Pro Gly Met Arg Leu Val Cys Arg Leu Ala His Gly His Phe Pro

```

<400> 5169
accggtggct ttgcactcta cccgctgctc aacgaggctg cgccgttggc gctgggggcc
60
ggtttggtgc ctgaggagct gccaccatcc cgcgggggcc tgggtgaggc actgggtgcc
120
gtggagctta gcctcagcga gttcctgcta ctcttcacca ctgctggcat ctacgtggat
180
ggcgaggcc gcaagtctcg tggccacgag ctgttggtgc cagcagcgcc catgggctgg
240
gggtatgcgg cccctacct gacagtgttc agcgagaact ccatcgatgt gtttgacgtg
300
aggagggcag aatgggtgca gaccgtgccg ctcaagaagg tgcggcccct caatccagag
360
ggctccctgt tcctctacgg caccgagaag gtccgcctga cctacctcag gaaccagctg
420
gcagagaagg acgagttcga catcccgac ctcaccgaca acagccggcg ccagctgttc
480
ctcaccaaga gcaagcgccg cttctttttc cgcgtgtcgg aggagcagca gaagcagcag
540
cgcagggaga tgctgaagga cccttttgtg cgctccaagc tcatctcgcc gcctaccaac
600
ttcaaccac
609

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<210> 5170  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5170  
 Thr Gly Gly Phe Ala Leu Tyr Pro Leu Leu Asn Glu Ala Ala Pro Leu  
 1 5 10 15  
 Ala Leu Gly Ala Gly Leu Val Pro Glu Glu Leu Pro Pro Ser Arg Gly  
 20 25 30  
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe  
 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
 165 170 175  
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser  
 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
 195 200

<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
 gaacagaggg ggtggaaact gcatcacaga tgttttccaa ggtccagggt ggaatctgag  
 60  
 ctctagtgtc tgactttgag atgcattata tttttaacac ataaatgagg ggatccatat  
 120  
 cacattcttt cttgtggacc accaaattga aggccttctt gtaattcaca agcagcagct  
 180  
 ctccagcatc tctccgtagc ctgggtgaag tcccagaagc tgggtgtgcat cattttccaa  
 240  
 ggtggcagag ctgcttgctc tgcagatcat tcctttgaga gaggagtaca agtgaagaaa  
 300  
 caaggaggca cttcctgtag gagcactgat gtgccttgct cacactcccc tctgagcttt  
 360  
 actggtaaga gagctccgac tgaacatgct gagcagttga gcacttttcc atcagcaaca  
 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga  
480  
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttcttgaaaa  
540  
tgttgggttaa tggagagaat tttggagttt cacttaatat tttcccatcg gtcgccataa  
600  
ataagtcttc aggcgctcct agaagagtcc cagcccaagg ctcgattaag gaccacactg  
660  
caggtctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtggtgata  
720  
acacatcatc tctgcaaaga ggaacctctc ccccgccgc cacttcactc aggcttctac  
780  
tgagcagcaa ggacagcctg ggtttcaa at gccacttccc ctgctttagg gatccaggtg  
840  
tcctgatagc gtgacctgc tgaggcaagg tatcaactcc gagagtgact gagtcactga  
900  
gcgtggcaca tgaacaaacg tcatgacaaa gattctctga gtgaagttaa caccacgtat  
960  
tttacctttg caaaaaacaa actggcacc ctagttctaa ctacggacgg acgatattct  
1020  
tgctccaca ccagattcc tggaaatggc taacgtttcc tttctagggg aagggtcgag  
1080  
gaataactcaa gtgctagctt agcagctttg ttcagtccag atcagagctg ttaggtaaa  
1140  
gcctaaccac ctccctgcag tctcttatat ctcaagcttt aggaacccat ttctaaatg  
1200  
acactagcgg agaatttata ttgtcagcct tgattaccat aggacaggca gaaaggcga  
1260  
aatttgtatc ttttaataa aaagaagctt ttaactttc cagcctatta ttataactga  
1320  
gttatattca ctgtggctca aactaattgg cattgtggaa catttcttta cttcaaagt  
1380  
tttctccacc aatcatttca gttctattgc agtcctggg ccatatgtcc cctgcaaatt  
1440  
gtgaaagtaa ttagtgacaa aatagcagcc tgctccttt caatggcgaa actgtcggca  
1500  
ttagcagttt tgggtaagct ggcgtacta taacacgtac tggaaacctg ttctcatca  
1560  
ccacctacca gattctggaa atgccgtctt ctagaaaacg atggcgtttg tgggtgtctt  
1620  
cttttgaaag gaacagtaat ttgtgtggat attgttaaag tgtttaaga atattttgac  
1680  
aattaagttt acattttaca attgctttat tttttattaa aatagttgta tataaatatt  
1740  
accctatttc actgttgttc aagtaaactc aaaccttgta gacaagtga tccctgata  
1800  
tgtatagaag ctgtgatata tagagtacat ttattgtgta aatgtttatg aatataattg  
1860  
ttctgtgtt tttataagtt ggggatattt tgtgtttta cggcaacaaa atttattgca  
1920  
tttaaatggt ttttatgtaa tagaaatcac gcaaaatagt gaaggattta aaatatgtat  
1980  
atgatacatg taaatgtaca aacttttaga agaaataaat ccaacaaatt tcaaaaaaa  
2040



aaaaaaaaaa aaaaaaaaaa

2060

<210> 5172

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5172

Met Leu Val Asn Gly Glu Asn Phe Gly Val Ser Leu Asn Ile Phe Pro  
 1 5 10 15  
 Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala  
 20 25 30  
 Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu  
 35 40 45  
 Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser  
 50 55 60  
 Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu  
 65 70 75 80  
 Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe  
 85 90 95  
 Arg Asp Pro Gly Val Leu Ile Ala  
 100

<210> 5173

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5173

ctttgatgcc tttattgatt caacacatgc ttattatatg cttgctgtgt gccgggcccc  
 60  
 agaccaggcg ctggagacac agcagtgaaa atactaacat tgtttctgcc ctcacggagc  
 120  
 tcacagtgtg acaggagac aaatagacct gtcagtagat aacatgaaaa taattggact  
 180  
 atgtgctgca gacacaatat cccaggtcta tgagaatgtc aatacagact tcacgtggga  
 240  
 aatggtgagg caataaggat cgtttccctt gatgaaatgg agcttgcaga agaaggcagg  
 300  
 gtcagttgtg gggagctctg gttggagggtg gagggagtgc attccaagct ggaggagctg  
 360  
 tccaggggtc tggagactaa acggagcccc ctgggaactg tctgagccc cgggtgctgaa  
 420  
 acagatcgcg gttctcttct cggacctccc gagaagcgct gtccggatat ttggtgctcc  
 480  
 caagcagtea gccctgctgg tctctgcttt ccagaccggc aaacttcgcc gtctctgtcc  
 540  
 ctttctggga aaatggc  
 557

<210> 5174

<211> 93

<212> PRT

<213> Homo sapiens

<400> 5174

```

Met Glu Leu Ala Glu Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1             5             10             15
Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
          20             25             30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
          35             40             45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
          50             55             60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65             70             75             80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
          85             90

```

<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

```

ccatggcagc tccagagacc aggtggaggg gaaatcaccc cacgctcccg agcagagagc
60
ttcggagcca gccagcctca ctgtgcgtgg cccacaacag ctgtctccat gtgtcacgtg
120
agggctgccc aacaccaggt agggcagcaa cgcccacgcc ctgcccgggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtagagagg tgcattgccac
240
cccaggcttg ttccgaaggc cccnnnnncc nc
272

```

<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

```

Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
 1             5             10             15
Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
          20             25             30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
          35             40             45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
          50             55             60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65             70             75             80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
          85             90

```

<210> 5177

<211> 637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

```

ntcctagtga gttatcgagtt ggtcttatta tcgctgaac tgggagcctt tgtttcctgc
60
gtgtcgagg aagtgcggt tcgggtacag ccgctaccag agtccctttc tcgcgaggcg
120
gaagaacccc gatcgtgag gagcaagggg gcgctaggaa agggaactgg gttgcgacgg
180
tccggcgaga gagagctggg gtgctggggg gggggaagt tggggagcag aggccgcttg
240
gtgtccgagt agggtaagac cgcaccgacc cagtccgtta ggaaagaagg gaaacgaggc
300
aattgtcggg cggatccccg gacggagggg taaggttggt tggaggcgc tgctccccgg
360
atggcgaccg cagatactcc ggccccggcc tccagtggcc tctcgccgaa ggaagaaggg
420
gagcttgaag atggggaaat cagtgcgac gataataaca gccagatacg gagtcggagc
480
agcagcagca gcagcggcgg cgggctgtta ccctatccgc gggaaggcc tcctcactcg
540
gccccggggt gtggatctgg cggaggcggg ggctcttcct cgtcatcgtc ctcttctcag
600
cagcagctga ggaatttctc acgctcgcgg cagcgt
637

```

&lt;210&gt; 5178

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

```

Met Ala Thr Ala Asp Thr Pro Ala Pro Ala Ser Ser Gly Leu Ser Pro
1          5          10          15
Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Ser Gly Gly Gly
35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
85          90

```

&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

```

ggaacacagg ccatgccgcc tcctctctct tgggattacc accagtgcac ctggaactat
60

```

gaagttgagc cggatgtaaa agcagtggat gcagggtttg atgggcatga cattccttat  
120  
gatgccatgt ggctggacat agagcacact gagggcaaga ggtacttcac ctgggacaaa  
180  
aacagattcc ctaaccccaa gaggatgcaa gagctgctca ggaacaaaaa gcgtaagctt  
240  
gtggatcatca gtgatcccca catcaagatt gaacctgact actcagtata tgtgaaggcc  
300  
aaagatcagg gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg  
360  
ccaggtctct cctcttacct ggatttcacc aatcccaagg tcagagagtg gtattcaagt  
420  
ctttttgctt tccctgttta tcagggatct acggacatcc tcttcctttg gaatgacatg  
480  
aatgagcctt ctgtcttttag agggccagag caaaccatgc agaagaatgc cattcatcat  
540  
ggcaattggg agcacagaga gctccacaac atctacggtt tttatcatca aatggctact  
600  
gcagaaggac tgataaaacg atctaaaggg aaggagagac cctttgttct tacacgttct  
660  
ttctttgctg gatcacaaaa gtatgggtgcc gtgtggacag gcgacaacac agcagaatgg  
720  
agcaacttga aaattttctat cccaatgtta ctactctca gcattactgg gatctctttt  
780  
tgcgagctg acataggcgg gttcattggg aatccagaga cagagctgct agtgcgttgg  
840  
taccaggctg gagcctacca gcccttcttc cgtggccatg ccaccatgaa caccaagcga  
900  
cgagagccct ggctcttttg ggaggaacac acccgactca tccgagaagc catcagagag  
960  
cgctatggcc tcctgccata ttggtattct ctgtttctacc atgcacacgt ggcttcccaa  
1020  
cctgtcatga ggctctctg ggtagagttc cctgatgaac taaagacttt tgatatggaa  
1080  
gatgaataca tgctggggag tgcattattg gttcatccag tcacagaacc aaaagccacc  
1140  
acagttgatg tgtttcttcc aggatcaa at gaggtctggt atgactataa gacatttgct  
1200  
cattgggaag gaggggtgtac tgtaaagatc ccagtagcct tggacactat tccagtgtt  
1260  
cagcgagggtg gaagtgtgat accaataaag acaactgtag gaaaatccac aggctggatg  
1320  
actgaatcct ctaggggact ccgggttgct ctaagcacta agggttcttc agtgggtgag  
1380  
ttatatcttg atgatggcca ttcatccaa tacctccacc agaagcaatt tttgcacagg  
1440  
aagttttcat tctgttccag tgttctgac aatagttttg ctgaccagag gggtcattat  
1500  
cccagcaagt gtgtgggtgga gaagatc  
1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

Gly Thr Gln Ala Met Pro Pro Pro Leu Ser Trp Asp Tyr His Gln Cys  
 1 5 10 15  
 Thr Trp Asn Tyr Glu Val Glu Pro Asp Val Lys Ala Val Asp Ala Gly  
 20 25 30  
 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
 130 135 140  
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
 180 185 190  
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr  
 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
 290 295 300  
 Leu Phe Gly Glu Glu His Thr Arg Leu Ile Arg Glu Ala Ile Arg Glu  
 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
 325 330 335  
 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
 340 345 350  
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala  
 355 360 365  
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val  
 370 375 380  
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

	405		410		415										
Ile	Pro	Val	Phe	Gln	Arg	Gly	Gly	Ser	Val	Ile	Pro	Ile	Lys	Thr	Thr
	420							425					430		
Val	Gly	Lys	Ser	Thr	Gly	Trp	Met	Thr	Glu	Ser	Ser				
	435						440								

<210> 5181  
 <211> 4961  
 <212> DNA  
 <213> Homo sapiens

<400> 5181  
 acgcgtgcag gtggcagagc acccaggcct tgaggccag gaagcatcat tcccagagct  
 60  
 gccagagcag tggccctgga aaatatggaa gcagctgtca gccatggccc agggcctgag  
 120  
 cgtatgattc tcaggaaaag tgggcaggat atctgactgt cagggtgtgcc ggcagaaggt  
 180  
 tctggcctct tcctgggaaa agccctttta gagtttgtcc tctcacttct ggagaagatg  
 240  
 cagacacagg agatcctgag gatactgcga ctgcctgagc taggtgactt gggacagttt  
 300  
 ttccgcagcc tctcggccac caccctcgtg agtatgggtg ccctgggtgc catccttgcc  
 360  
 tactggttca ctcaccggcc aaaggccttg caaccacat gcaacctct gatgcagtgc  
 420  
 gaagaagtag aggacagtgg cggggcacgg cgatctgtga ttgggtcttg ccctcaattg  
 480  
 cttaccatt actatgatga tgcccggacc atgtaccagg tgttcgccg tgggcttagc  
 540  
 atctcaggga atgggccctg tcttggttcc aggaagccta agcagcctta ccagtggctg  
 600  
 tcctaccagg aggtggccga cagggtgaa tttctgggt ccggacttct ccagcacaat  
 660  
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&lt;210&gt; 5182

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

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 Glu Asp Ser Gly Gly Ala Arg Arg Ser Val Ile Gly Ser Gly Pro Gln  
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 Arg Arg Gly Leu Ser Ile Ser Gly Asn Gly Pro Cys Leu Gly Phe Arg  
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 Lys Pro Lys Gln Pro Tyr Gln Trp Leu Ser Tyr Gln Glu Val Ala Asp  
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 <213> Homo sapiens

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&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

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Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

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&lt;400&gt; 5185

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1320  
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1380  
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1440  
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1560  
agaaatataa ataggaactg gggtcattga gcctcaggta gggaatatat caaccgatt  
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1657

&lt;210&gt; 5186

<211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 5186  
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 Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser  
 20 25 30  
 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro  
 35 40 45  
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser  
 50 55 60  
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg  
 65 70 75 80  
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr  
 85 90 95  
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn  
 100 105 110  
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val  
 115 120 125  
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala  
 130 135 140  
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu  
 145 150 155 160  
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys  
 165 170 175  
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu  
 180 185 190  
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp  
 195 200 205  
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser  
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 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu  
 225 230 235 240  
 Pro His Ser

<210> 5187  
 <211> 1712  
 <212> DNA  
 <213> Homo sapiens

<400> 5187  
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 180  
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 240  
 aaatattatc tctgtggttt ttgtcctgcg gaattgttca caaatacacg ttctgatctt  
 300

gggccgtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt  
360  
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420  
gtagaacgta ggatcagacg aggccatgct cgtttggcat tatctcaaaa ccagcagtct  
480  
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caggggatga tgaaattagt tgagcaatta aaagaagaga gagaactgct aaggccaca  
660  
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780  
caacacatgg gctatgcaa aattaaagct actgtagaag aattaaaga aaagttaagg  
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900  
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960  
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1020  
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1380  
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aaagttaatt atcctttttt tagggatttt gatgtcgttt cttttttttt ttaatacaaa  
1680  
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1712

&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 5188

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Met Ile Ser Ala Ala Gln Leu Leu Asp Glu Leu Met Gly Arg Asp Arg
 1           5           10           15
Asn Leu Ala Pro Asp Glu Lys Arg Ser Asn Val Arg Trp Asp His Glu
      20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
      50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
      65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
      85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
      100          105          110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
      115          120          125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
      130          135          140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
      145          150          155          160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
      165          170          175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
      180          185          190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
      195          200          205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
      210          215          220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
      225          230          235          240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
      245          250          255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Glu Arg Glu Arg Lys Arg
      260          265          270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
      275          280          285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
      290          295          300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
      305          310          315          320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
      325          330          335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
      340          345          350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
      370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
      385          390          395          400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
      405          410          415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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420 425 430  
 Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser  
 435 440 445  
 Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile  
 450 455 460  
 Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys  
 465 470 475 480  
 Leu Phe Gly Asn Tyr Arg Pro His Leu  
 485

<210> 5189  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 5189  
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 120  
 aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat  
 180  
 gaagttaatc attccttaat tcctgtttat ttatatttca tttttgcttt ctttttactc  
 240  
 catgtgttat tcctacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg  
 300  
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 323

<210> 5190  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5190  
 Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp  
 1 5 10 15  
 Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn  
 20 25 30  
 Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser  
 35 40 45  
 Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu  
 50 55 60  
 Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys  
 65 70 75 80  
 Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His  
 85 90 95  
 Pro Cys Ala Ala  
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<210> 5191  
 <211> 1632  
 <212> DNA  
 <213> Homo sapiens

<400> 5191  
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120  
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180  
cgtgggaggc cgggtgcgca ggactggaac gcggttcctc cttcttcccc gccccgcccc  
240  
gcttccggcg gaagcggcct caacaaggga aactttattg ttcccgtagg gcagtcgagg  
300  
atgtcggtag attacgcggc ggggctgtcg ccgtacgcgg acaagggcaa gtgcggcctc  
360  
ccggagatct tcgaccccc ggaggagctg gagcggaagg tgtgggaact ggcgaggctg  
420  
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480  
atccccgact tcaggggtcc ccacggagtc tggaccatgg aggagcgagg tctggcccc  
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720  
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780  
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900  
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1140  
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1260  
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1320  
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1380  
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1440  
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1500  
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1560

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 1620  
 aagtggggga tc  
 1632

<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 5192  
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 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val  
 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
 50 55 60  
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
 65 70 75 80  
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
 85 90 95  
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
 100 105 110  
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
 115 120 125  
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
 130 135 140  
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
 145 150 155 160  
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
 165 170 175  
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
 195 200 205  
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
 210 215 220  
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
 225 230 235 240  
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
 245 250 255  
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
 290 295 300  
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

340 345 350  
 Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg  
 355 360 365  
 Phe Arg Glu Glu Ala Thr Pro Gln Arg  
 370 375

<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

<400> 5193  
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 120  
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 180  
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 240  
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 360  
 tccgtggggg ggtctccggg aggtttgcct gtgtcaggcc tgtgctgctt ctggcgagg  
 420  
 cgcttgcca gcctcatcca gcctggtgtc tccggtgcca cgcgctaaca ccttcagtgc  
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 540  
 tgccagcacc cggg  
 554

<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp  
 20 25 30  
 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35 40 45  
 Gly Gly Ala Cys Pro Ala Ser Ser Leu Val Ser Pro Val Pro Arg  
 50 55 60  
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala  
 65 70 75 80  
 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg  
 85 90

<210> 5195  
 <211> 964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5195

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gggccaggc tcacagaggt gtgaaagagg caagcacacc gcaggggcct ctgagcccag
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ccagcctcgc ttcaatgctg ggaggctgac gtcttccttt ttgtcttctg cccaggccag
120
ctgcggggcg tccagcggct gtgccacttc tacagcgccg tcatgcccag cgaggcccag
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tgtgtcatct accatgagct ccagctctcc ctggcctgca aggtggccga caaggtgctg
240
gaggggcagc tcctggagac catcagccag ctctacctgt ccctgggcac cgagcggggc
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900
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960
gccg
964

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&lt;210&gt; 5196

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5196

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Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
1           5           10           15
Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65		70		75		80									
Tyr	Tyr	Ile	Leu	Arg	Gln	Ser	Glu	Leu	Val	Asp	Leu	Tyr	Ile	Gln	Val
			85					90					95		
Ala	Gln	Asn	Val	Ala	Leu	Tyr	Thr	Gly	Asp	Pro	Asn	Leu	Gly	Leu	Glu
		100						105					110		
Leu	Phe	Glu	Ala	Ala	Gly	Asp	Ile	Phe	Phe	Asp	Gly	Ala	Trp	Glu	Arg
		115					120					125			
Glu	Lys	Ala	Val	Ser	Phe	Tyr	Arg	Asp	Arg	Ala	Leu	Pro	Leu	Ala	Val
		130					135					140			
Thr	Thr	Gly	Asn	Arg	Lys	Ala	Glu	Leu	Arg	Leu	Cys	Asn	Lys	Leu	Val
		145				150				155				160	
Ala	Leu	Leu	Ala	Thr	Leu	Glu	Glu	Pro	Gln	Glu	Gly	Leu	Glu	Phe	Ala
			165					170					175		
His	Met	Ala	Leu	Ala	Leu	Ser	Ile	Thr	Leu	Gly	Asp	Arg	Leu	Asn	Glu
		180						185				190			
Arg	Val	Ala	Tyr	His	Arg	Leu	Ala	Leu	Gln	His	Arg	Leu	Gly	His	
		195					200				205				
Gly	Glu	Leu	Ala	Glu	His	Phe	Tyr	Leu	Lys	Ala	Leu	Ser	Leu	Cys	Asn
		210					215				220				
Ser	Pro	Leu	Glu	Phe	Asp	Glu	Glu	Thr	Leu	Tyr	Tyr	Val	Lys	Val	Tyr
		225				230				235				240	
Leu	Val	Leu	Gly	Asp	Ile	Ile	Phe	Tyr	Asp	Leu	Lys	Asp	Pro	Phe	Asp
			245					250					255		
Ala	Ala	Gly	Tyr	Tyr	Gln	Leu	Ala	Leu	Ala	Ala					
		260						265							

&lt;210&gt; 5197

&lt;211&gt; 1045

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5197

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120

ctcatgatcc gccacactca gcctcgaaa gtgctgggat tacaggcatg agccaccacg  
180

tccggccacc actgactttt tcattctttc tcattcttcc tgggcoctcc tgctgttgta  
240

ggcccccatg aagaagtggg ctattctgag aaactgaagt tcagtgatga tgaagaggag  
300

gaagaagtgg tgaaggacgg caggccaaag tggaacagtt gggaccctag gaggcagcgg  
360

cagttgtcaa tgagctctgc agacagtgcg gacgctaagc ggactcgaga ggaaggggaag  
420

gactgggctg aagcagtggg tgcgtcccggt gtggtccgaa aggcgccaga ccctcagcca  
480

ccgccaggga agcttcatgg ctgggcacca ggccctgact accagaagtc atcaatgggc  
540

agcatgttcc ggcaacagtc catcgaggac aaggaggaca agccccacc aaggcagaag  
600

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660

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 720  
 cagaagtgtg agcaggcacg aaaggcaggt gagggccgga agcaggcaga gaaggaagtg  
 780  
 ccctgggtctc caagtgtga gaaggcatct cccaggaaa acggccctgc tgtccacaaa  
 840  
 ggctccccag aattccctgc ccaagagacc cccaccacat tcccagaaga ggcaccaca  
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 gtgtccccag cagtggcaca gagcaacagc agtgaggaag aggccagaga ggctgggtcc  
 960  
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 1020  
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 1045

&lt;210&gt; 5198

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5198

Leu Phe His Ser Phe Ser Phe Phe Leu Gly Pro Pro Ala Val Val Gly  
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 Thr Pro Thr Thr Phe Pro Glu Glu Ala Pro Thr Val Ser Pro Ala Val  
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 <211> 1332  
 <212> DNA  
 <213> Homo sapiens

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1332

&lt;210&gt; 5200

&lt;211&gt; 358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5200

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&lt;210&gt; 5201

&lt;211&gt; 6104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5201

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&lt;210&gt; 5202

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5202

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 Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp  
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&lt;210&gt; 5203

&lt;211&gt; 1863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5203

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 1863

&lt;210&gt; 5204

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

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Asn Asp Gly Lys Asn Ile Phe Tyr Ala Ala Arg Thr Pro Ala Thr Leu
      130      135      140
Phe Ala Val Met Phe Ala Met Tyr Ile Ile Ser Gly Leu Thr Gly Phe
145      150      155      160
Ile Gly Leu Asn Ser Ile Ala Val Leu Cys Asn Leu Val Met Gly Leu
      165      170      175
Ala Leu Ile Phe Leu Cys Thr Trp Ala Tyr Val Lys Tyr Ser Gly Glu
      180      185      190
Phe Arg Glu Ile Gly Thr Val Ile Asp Gln Ile Ala Glu Thr Leu Trp
      195      200      205
Glu Gln Val Leu Lys Pro Leu Gly Asp Asn Leu Met Glu Glu Asn Ile
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Arg Gln Ser Val Thr Asn Ser Ile Lys Ala Gly Leu Thr Asp Gln Val
225      230      235      240
Ser His His Ala Arg Leu Lys Thr Asp
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&lt;210&gt; 5205

&lt;211&gt; 2011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5205

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 2011

&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

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			20					25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
			35				40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

50	55	60
Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val Tyr Val		
65	70	75
Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro		80
	85	90
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr		95
	100	105
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met		110
	115	120
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys		125
	130	135
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala		140
145	150	155
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu		160
	165	170
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp		175
	180	185
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu		190
	195	200
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser		205
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Thr Leu Gln Gly Asp Met Arg His Met Thr Leu Glu Gly Glu Glu Glu		220
225	230	235
Asn Gly Glu Val His Gln Gly Thr		240
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&lt;210&gt; 5207

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5207

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 Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met  
 35 40 45  
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser  
 50 55 60  
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg  
 65 70 75 80  
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys  
 85 90 95  
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu  
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&lt;210&gt; 5210

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5210

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			20					25					30		
Ala	Leu	Leu	Ile	Leu	Tyr	Ala	Leu	Leu	Ser	Arg	Leu	Thr	Gly	Ser	Arg
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Val	Glu	Glu	Leu	Arg	Trp	Arg	Gln	Arg	Arg	Ala	Ala	Lys	Gly	Ala	Arg
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Ser	Val	Glu	Glu	Glu											
				85											

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&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<212> PRT  
<213> Homo sapiens

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Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu  
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Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr  
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&lt;210&gt; 5214

&lt;211&gt; 1364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5214

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 Glu Lys Thr Lys Leu Ile Ser Cys Leu Gly Ala Phe Arg Gln Phe Trp  
 35 40 45  
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Cys	Ser	Leu	Leu	Pro	Val	Val
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Trp	Lys	Leu	Asp	Pro	Ala	Thr
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Pro	Tyr	Asp	Lys	Asp	Leu	Phe
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Val	Leu	Glu	Gln	Pro	Tyr	Ser
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Arg	Asp	His	Leu	Met	Trp	Val
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His	Ser	Leu	Arg	Leu	His	His
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Lys	Ser	Leu	Gln	Met	Asn	Asp
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Glu	Thr	Ile	Tyr	Gly	Asn	Gly

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&lt;210&gt; 5218

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5218

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Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser



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<213> Homo sapiens

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<210> 5220  
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Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
          20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
        35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
      50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
          85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
        100           105           110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
      115           120           125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
     130           135           140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
 145           150           155           160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
          165           170           175
Ile Thr Gly

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&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

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ntccggaccc tccaagtgga gaccctgggtg gagccccag aaccatgtgc cgagcccgct
60
gcttttggag acacgcttca catacactac acgggaagct tggtagatgg acgtattatt
120
gacacctccc tgaccagaga ccctctgggt atagaacttg gccaaaagca ggtgattcca
180
ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct
240
tctcacttgg cctatggaaa acggggattt ccaccatctg tcccagggaac taaagacaac
300
ctgatgaggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
360
ttgggccaca tgggtctgct gcctgtgcc cacccttcc cagaacactg gacttcttcc
420
ctgccctttt ctacaactct acgctgtgtc agctgtacag ccacccccca ccccttctct
480
tcagccacca tctgtcc
497

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&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5222

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Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys
 1           5           10           15
Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
      20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
      35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
      50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
      85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
      100           105           110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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ngcaccattt tgcacaatga agccaaagac gtggagagag aagtttgctt tattgatatt
60
gcctgcgatg aaattccaga gcgctactac aaagaatctg aggatcctaa gcacttcaag
120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcattgggtg atgagtggta tgatatgaca atggatgatg ttcgggaata cgagaaaaac
360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctccctgtg ggatgacata
420
gagagtcatg cccaaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
540
tccccctgct gccttcttcc gtcgcgagtg cgccttctag tgctccatcc acccctctct
600
ccacagacgc acccgattt ctgtccgttc ccaaaga
637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

```

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

```

      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

```

&lt;210&gt; 5225

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5225

```

acgcgtgaag gggctgggggt gggcaatcag ggaggacttc ctggaggcgg cagctgaggc
60
tggggcagag aaggacccag ggcactggaa ggggaaggag aaacgtaagc agagtcttgg
120
caggcctggt cagacggaca tgcccaagggt aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cgggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

```

&lt;210&gt; 5226

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5226

```

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65			70						75						80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
			100					105					110		
Pro															

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

tcgcgaacag gccacccagg cacacgtgga tgttcttttag ctccttggcg ccaccagatg  
 60  
 cagctgccag tgagatgttc tgcagctggt tgcctcttc gctgaagtcg gacaccact  
 120  
 ggatgacggt catgccggca ggcaccgtgt agaaggccag tgtggttaacc ttacctgtct  
 180  
 acctgaactt caccctgca gacctcatct tcaccgtgga cttcgaaatt gctacaaagg  
 240  
 aggatcctcg cagcttctac gagcgggggtg tcgcagtcct gtgcacagag taaacttttc  
 300  
 tagctgcccc tttctgtaat agtgaaagtt ggtatttaac atttattcat ttttaaaata  
 360  
 tttggaaggt ctgagcttgt gaaaagaaag tgggttgtct gaggttgag gaagctgaat  
 420  
 ggaatctgac ggttgggagt ggtggaaatt ggaaggatac caggaggat ttgggaaaac  
 480  
 cttacggagc tgccctcgtc tactggagca gaagaaatag acctaat ttcctcaaggga  
 540  
 attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc  
 600  
 aaactagaag ctgtcagtga caataacttg gaattagtca atgaaattct tgaagacatc  
 660  
 actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct  
 720  
 cacttccagt cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct  
 780  
 ccatcaagcc cagaaatgaa taattcttct atcaataatc agttattacc agtagatgcc  
 840  
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 900  
 gaaaataatg atctggtaat tgcccgaatc ctccatgggg gaatgataga tcgacaagg  
 960  
 ctacttcag tgggagatat aattaaagaa gtcaatggcc atgagggttg aaataatcca  
 1020  
 aaggaattac aagaattact gaaaaatatt agtgggaagt tcaccctaaa aatcttacca  
 1080  
 agttatagag ataccattac tcctcaacag gtatttgtga agtgtcattt tgattataat  
 1140

ccatacaatg acaacctaata accttgcaaa gaagcaggat tgaagttttc caaaggagag  
 1200  
 attcttcaga ttgtaaatag agaagatcca aattggtggc aggctagcca tgtaaaagag  
 1260  
 ggaggaagcg ctggtctcat tccaagccag ttcctggaag agaagagaaa ggcatttgtt  
 1320  
 agaagagact gggacaattc aggacctttt tgtggaacta taagtagcaa aaaaaagaaa  
 1380  
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcatgaaat ccagatatat  
 1440  
 gaggaggtag ccaaaatgcc tcccttccag agaaaaacat tagtattgat aggagctcaa  
 1500  
 ggtgtaggcc gaagaagctt gaaaaacagg ttcatagtat tgaatccac tagatttggg  
 1560  
 actacggtgc catttacttc acggaaacca agggaagatg aaaaagatgg ccaggcatat  
 1620  
 aagtttgtgt cacgatctga gatggaagca gatattaaag ctggaaagta tttggaacat  
 1680  
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 1740  
 actggacgga cttgcattct ggatgtcaac ccacaagcac tgaaagtatt gaggacatca  
 1800  
 gagtttatgc cctatgtggt atttattgcg gctccggagc tagagacggt acgtgccatg  
 1860  
 cacaaggctg tgggtgatgc aggaatcact accaagcttc tgaccgactc tgacttgaag  
 1920  
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactatct tgatttgatc  
 1980  
 atcataaatg ataatctaga caaagccttt gaaaaactgc aaactgccat agagaaactg  
 2040  
 agaatggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taaggttaac  
 2100  
 aatgaaaatt aaactcttaa aaagtgactg caacaaataa accttctact gagaaaatac  
 2160  
 atcacagata gaagattatc tgctaagtcc aggcattttt atggtgtaga ttgaaataat  
 2220  
 agtacacttc tgaattttta tataaaatgt ggttggagg tgtactaata tataatttat  
 2280  
 cttattttt ctaactttgt atggataatc tttctattca tatcacataa agaaatgcgt  
 2340  
 tgaagcaaaa aaaaaaaaaa aaaaaa  
 2366

&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Arg	Leu	Gly	Val	Val	Glu	Ile	Gly	Arg	Ile	Pro	Gly	Gly	Ile	Trp	Glu
1				5					10					15	
Asn	Leu	Thr	Glu	Leu	Pro	Ser	Ser	Thr	Gly	Ala	Glu	Glu	Ile	Asp	Leu
			20					25					30		
Ile	Phe	Leu	Lys	Gly	Ile	Met	Glu	Asn	Pro	Ile	Val	Lys	Ser	Leu	Ala

35 40 45  
 Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp  
 50 55 60  
 Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu  
 65 70 75 80  
 Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu  
 85 90 95  
 Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys  
 100 105 110  
 Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile  
 115 120 125  
 Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His  
 130 135 140  
 Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn  
 145 150 155 160  
 Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln  
 165 170 175  
 Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu  
 180 185 190  
 Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser  
 195 200 205  
 Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr  
 210 215 220  
 Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn  
 225 230 235 240  
 Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly  
 245 250 255  
 Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala  
 260 265 270  
 Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe  
 275 280 285  
 Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser  
 290 295 300  
 Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Met Met  
 305 310 315 320  
 Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile  
 325 330 335  
 Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val  
 340 345 350  
 Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe  
 355 360 365  
 Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser  
 370 375 380  
 Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val  
 385 390 395 400  
 Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu  
 405 410 415  
 His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile  
 420 425 430  
 Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro  
 435 440 445  
 Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val  
 450 455 460  
 Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala



465                                      470                                      475                                      480  
 Val Val Asp Ala Gly Ile Thr Thr Lys Leu Leu Thr Asp Ser Asp Leu  
    485                                      490                                      495  
 Lys Lys Thr Val Asp Glu Ser Ala Arg Ile Gln Arg Ala Tyr Asn His  
    500                                      505                                      510  
 Tyr Phe Asp Leu Ile Ile Ile Asn Asp Asn Leu Asp Lys Ala Phe Glu  
    515                                      520                                      525  
 Lys Leu Gln Thr Ala Ile Glu Lys Leu Arg Met Glu Pro Gln Trp Val  
    530                                      535                                      540  
 Pro Ile Ser Trp Val Tyr  
 545                                      550

<210> 5229

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

acgcgtgtgc tgtggttaca tccgtggaac agacagacag cagctgcccc tgcaaatgtc  
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 120  
 tctcgcccac attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc  
 180  
 aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa  
 240  
 aggaatgaaa ggatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat  
 300  
 gtaaccacag cacacgcgtg gctcacggta ctagtgtgat aaatgcttgt tacatgaagg  
 360  
 cgtgaacagg gatgagaaga gacttcctgg agaaacaaaa ggactaacia tcaggaaggg  
 420  
 gaggtgatcg gggcaggagt aaagtggaca cctcagcaaa gccattcgct gtgatctctg  
 480  
 attgtgcagt gtcattgtct gtcaccagag cccctcgtg tttgatgttg gccaatgccg  
 540  
 ccagcatgat ctacgaggcc aaatcctaata ctaccattct ctgacaccag ctgggtcccct  
 600  
 ggggtcgtcc acccgatgtc cccattctc cccacttggc cccccaca ggtctctggc  
 660  
 aaaggaccgt gggaggcacc tgtgacactg cccttttctt gtgcagctgt ttttcttctt  
 720  
 cattcttttc actcctcggt actctttttt ttttactct cagccacac aaaactagga  
 780  
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 840  
 gagccagcga actttcttta cctcctagta tcatttcattg aaaattagta gcacctgcac  
 900  
 aatggggcct tggagacagg aataaaagga aaaatctgga atggaatcac atgacgcaac  
 960  
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 1020  
 gagcatccct g  
 1031

<210> 5230  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 5230  
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 1 5 10 15  
 Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe  
 20 25 30  
 Leu Val Leu Cys Gly Leu Arg Val Lys Lys Lys Arg Val Thr Arg Ser  
 35 40 45  
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser  
 50 55 60  
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys  
 65 70 75 80  
 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp  
 85 90 95  
 Cys Gln Arg Met Val Asp  
 100

<210> 5231  
 <211> 845  
 <212> DNA  
 <213> Homo sapiens

<400> 5231  
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 aaggtggagg aagggctgca ggaggaggag ctctagcatc gcgaccgcgc ccgtcccgtc  
 120  
 cagtctggcc tgggcgcgcg gggaacgctg tcttggtgctg cgccaccga acagcctgtc  
 180  
 ctggtgcccc ggctccctgc cccgcgcccc gtcctgaccc tgcgccccctc actcctcccg  
 240  
 ctccatctgc tgctgctgct gctgctcagt gcggcggtgt gccgggctga ggctgggctc  
 300  
 gaaaccgaaa gtcccgtccg gaccctccaa gtggagaccc tggaggagcc cccagaacca  
 360  
 tgtgccgagc ccgctgcttt tggagacacg cttcacatac actacacggg aagcttggtg  
 420  
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 480  
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 540  
 agggcaatca ttccttctca cttggcctat ggaaaacggg gatttccacc atctgtccca  
 600  
 gcggatgcag tgggtgcagta tgacgtggag ctgattgcac taatccgagc caactactgg  
 660  
 ctaaagctgg tgaagggcat tttgcctctg gtagggatgg ccatgggtgcc agccctcctg  
 720  
 ggcctcattg ggtatcacct atacagaaag gccaatagac ccaaagtctc caaaaagaag  
 780

ctcaaggaag agaaacgaaa caagagcaaa aagaaataat aaataataaa ttttaaaaaa  
 840  
 cttaa  
 845

<210> 5232  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<400> 5232  
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 1 5 10 15  
 Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu Thr Glu  
 20 25 30  
 Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu  
 35 40 45  
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr  
 50 55 60  
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg  
 65 70 75 80  
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu  
 85 90 95  
 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile  
 100 105 110  
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val  
 115 120 125  
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile  
 130 135 140  
 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val  
 145 150 155 160  
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu  
 165 170 175  
 Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu  
 180 185 190  
 Glu Lys Arg Asn Lys Ser Lys Lys Lys  
 195 200

<210> 5233  
 <211> 2801  
 <212> DNA  
 <213> Homo sapiens

<400> 5233  
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 cccaagaag tgctccagat ttgcaaggaa tagccccaag agaataccaa gacaagcagg  
 120  
 ctgttccctg gaaaaaatct aatgcaagga gggctagttc acagcaaatt cactgcctcc  
 180  
 tcccatgcac gtggtagaga gtaccagtat caacatggcc ctgttttctg ctaaaaccag  
 240  
 attttgagga atcagagacc cccaacta ctcactcagt agctagcagc cccttccttt  
 300

caactgggag tgttattaga atgaaaagta attagttaga agggcataca tctcagtggc  
360  
atgagcattg tggaatatcc tttcctaggc acatttgtcc actaagggaa cagcctcaga  
420  
aactggtaca gcaatgggtg agatgagatc ctggagagag aacacagcca tcccctatag  
480  
aaaggcacag cttttgggct tctctggcct gaatgccttc tgggggtattt ccatatgcaa  
540  
cagcccagag tcatagcctt gggcaaccac acatagaggt ttccttctca cttcagacac  
600  
atacatcact ttcacaccac ttggggatgg aaatacctac aagagtgaag gtcaagggcc  
660  
ctccccaggc atctcattca ttactcagct tccttcctga ccaagtctgc caaccaatgg  
720  
ccagctatgc gcctcatcct cattgtctct gcctccacgt aaatgaaacc aaaggcctca  
780  
gcatatcctg ggaggactgg gggctgttac ctaatgggcc tctctgtccc attataggtg  
840  
caaggcacc ccatccacaca tttgcaccac tactccaaga tagtattttt cttttcacac  
900  
aatctcttta cagcagaatc cagagttggg ttgtagtta ccttcctgga aagctcatta  
960  
tctttgtttg aattaacatt tcagcatgga actaactggg cggaggaagg atcggtatac  
1020  
gtcttcagaa agttctcatt gcccagctg cctagtacta tacaagaagc tctactttga  
1080  
tggcagatct aagaaggcta taggcctttg tttgtaggaa gcagtgtcat tacattcaag  
1140  
cttcacttct ctgattggct tccaaccact gggattcaaa gagaatcaa ggttctgcct  
1200  
atgtctgatg acataaggaa aacttggtt cctctgtcga aggttcccct ctgctcatcc  
1260  
ctcctcattc agacatcctc caccatacca gtgttttagaa gcaaaacatg aagggttagc  
1320  
gccaccagga tagttagcag aaatatgtc tgtaaagcta ggcagatgag cccagaagaa  
1380  
tgggtcccaga gaaagcagac tggctccaat agatatcagg cagcaatccc aataaattct  
1440  
gacatgtcct tggcaatgga agcctgggtt ggagatcctg aggcagctgt gcctactgtt  
1500  
ccccacctca gaagcttcct gccagagag ccagcagcct tgggatacta atgaggatgc  
1560  
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1620  
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1920

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&lt;210&gt; 5234

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5234

Leu	Thr	Pro	Val	Ile	Ser	Ala	Leu	Trp	Glu	Ala	Lys	Ala	Gly	Gly	Ser
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Leu	Asp	Thr	Arg	Ser	Ser	Arg	Pro	Val	Trp	Gln	Arg	Gly	Glu	Thr	Thr
		20					25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys	
		35				40					45				
Leu	Ala	Val	Pro	Val	Val	Pro	Ala	Thr							
		50				55									

&lt;210&gt; 5235

&lt;211&gt; 3017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5235

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3017

&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

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Gly Lys Ile Tyr Tyr Tyr His Val Ile Thr Arg Gln Thr Gln Trp Asp			
20	25	30	
Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu			
35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
145	150	155	160
Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
165	170	175	
Leu Glu			

&lt;210&gt; 5237

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5237

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 720



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 1140  
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 1238

&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

Phe	Phe	Phe	Leu	Pro	Ser	Ser	Ile	Ser	Phe	Phe	Phe	Thr	Ile	Ser	Phe
1				5				10						15	
Pro	Lys	Ala	Ala	Pro	Tyr	Ser	Val	Gly	Ile	Ala	Asn	Val	Asp	Val	Leu
		20						25					30		
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp	Asp
	35						40				45				
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly	Ile
	50					55					60				
Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr	Pro
65					70					75				80	
Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
			85						90					95	
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro	Ala
		100						105					110		
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
	115					120						125			
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
	130					135					140				
Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu	Asp
145					150					155				160	
Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile	Pro
			165					170					175		
Ala	Leu	Val	Lys	Gly	Thr	Leu	Pro	Gln	Glu	Arg	Val	Thr	Lys	Leu	Ala
		180						185					190		
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
		195					200						205		
Met	Lys	Leu	Tyr												
			210												

&lt;210&gt; 5239

&lt;211&gt; 2061

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5239

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<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
		50					55				60				
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
					70					75					80
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
			85					90					95		
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
			100					105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
			115				120					125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
			130				135					140			
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
					150					155					160
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
			165					170						175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
			180					185					190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

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 <211> 461  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 360  
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 461

<210> 5242  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 5242  
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 20                      25                      30  
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val  
 35                      40                      45  
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr  
 50                      55                      60  
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser  
 65                      70                      75                      80  
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp  
 85                      90                      95  
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly  
 100                      105                      110  
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val  
 115                      120                      125  
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe  
 130                      135                      140  
 Pro Arg

145

<210> 5243  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

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 120  
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaaccccaga  
 180  
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 240  
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<210> 5244  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 5244  
 Xaa Ile Pro Cys Ile Leu Phe Trp Ala Lys Arg Ile Met Ile Lys Phe  
 1 5 10 15  
 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys  
 20 25 30  
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg.  
 35 40 45  
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile  
 50 55 60  
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe  
 65 70 75 80  
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val  
 85 90 95  
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys  
 100 105 110  
 Gln Arg

<210> 5245  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 5245  
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 60  
 ctccggcccg ctaagcccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg  
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgacgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag  
 300  
 atgtgggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccggatggaa  
 480  
 ttc  
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
			35				40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
	50					55					60				
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70					75				80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
				85				90					95		
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100				105						110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
		115					120					125			
Met	Glu	Phe													
			130												

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 ctccggcccg ctaagccgcy gcggacaact atgctgaaag ccaagatcct cttcgtgggg  
 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccgca tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt  
 300  
 gagtctctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
 360  
 gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg  
 420  
 tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
 480  
 aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg  
 540  
 gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
 600  
 tccatgtctg agagcagaga cagggaggag atgtcaatta tgacctagcc agccttcacc  
 660  
 tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat  
 720  
 ccagctcctg atgttttctt ctccctctga ctgcagagga agtggtccta cctgcaggaa  
 780  
 ggcacctgtc acacagggcg ttcactcaga ccatctgtgc tctgccctga gttcagttga  
 840  
 gaaaatccta ttatcaaatt tggatttcct ggccccagaa cttcccaaag acctgtaaaa  
 900  
 tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
 960  
 cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
 1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35					40					45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
	50				55						60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65				70					75					80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
	115					120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
	130				135						140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145				150						155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

```

<400> 5250
Xaa Arg Val Arg Ala Thr Gly Pro Ala Gly Ala Val Leu Ile Pro Ser
 1          5          10          15
Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg
      20          25          30
Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
      35          40          45
Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
      50          55          60
Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
65          70          75          80
Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
      85          90          95
Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
      100          105          110
Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

```

<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccgt gcatcaacgg ctcgggggaa
120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacagggc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caataacctt
300
gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgtctct cgggctcaac
360
tcgcagcctc ag
372

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<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
1      5      10      15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
20      25      30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
35      40      45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
50      55      60
Tyr Asp Asn Trp Pro Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
65      70      75      80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
85      90      95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
 115 120

<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 5253  
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 60  
 ccacagtgca tttccagtcc agcaaatgga aatctgggga gtctatactt tgctcacaac  
 120  
 tcattctcaat gccatccttg tggagagcca cagtgtagtg caaggttcca tccaattcac  
 180  
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggg  
 240  
 ctactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga  
 420  
 ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc  
 480  
 tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagaggggc agccccgc tagaggagat gcgagctctg cgctctgcca gggccccgag  
 600  
 cccgtcagag gccgccccgc gccgccccga agccaccgcg gccccctca ctctagagg  
 660  
 aaggagacac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag  
 720  
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtc  
 780  
 cagccctggg ccctgagccg ggtccccctc cgcaagcgcc caccgatccg gaggtgcgg  
 840  
 gcagccgtta tcccggtggt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaaa  
 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
 Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln  
 1 5 10 15  
 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
 20 25 30  
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly  
 35 40 45  
 Ser His Arg Gly Pro Pro His Ser

50

55

&lt;210&gt; 5255

&lt;211&gt; 1410

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5255

nncctgcctc cctcaggcac cagatccagt gtcctagtga aacgctggat cctagatccc  
60  
caaccccaga tccccatgcc tcgagccctg gatctccaag ctcagctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tactggatc ccagatcccc taccctcacc cactggatc ctgcattggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg  
300  
catttcaagc actacgcctt ccacccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccctc  
480  
aatgttgaag cctcatctct tgaaggcaga tctgatatt ccaaggcact gaatcccaag  
540  
ccctgaatcc ccggtttctg atctgaatct tccaggcgcc ggggtcccaa tgttcaggcc  
600  
ccaagtctag atcctggcag cccagtcaca gagtatcca cacacactgg tgcccagagc  
660  
cggcttctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccaggc  
720  
cctggctgca acctgcacgg atgctggatt cccctcacc ccacctctgc atggccaccc  
780  
cctcccagcc ctgtggggaa actgttcctt ggaaccactc cactccctgc atccccacac  
840  
ttcacagcat cttccatccc cctcccacct tctaggcgaa tagtccccag agctgtgttc  
900  
ctccaagggg tccgaggaat cactcactcc tggaggctgg caaggagaca gtctgaggcc  
960  
agggacacat gaagggatgt cccaccccc aactatcag ggctcccca ggcttcaga  
1020  
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaacccaag caccatga  
1080  
tgcaaaaaac aaaaacaaaa aaaaccacca aatccccaaa ttcattccag atctattttt  
1140  
ctaccagaga gaggagcaaa gtctcctcc cctgcgcctt tacattctgc acttcatagt  
1200  
tggtattctga gcttaggac atctggagac cccatggagg gacttggaag ggggaactgg  
1260  
gatttgggga ggggctggag gacttcgca cgcttcacc tccttcgacc tccactgcgc  
1320  
cccacctccc tgcctgtgtg tggtatttca aaggaaaaga aaaaaggaa taaattttct  
1380

aagctcttta aaaaaaaaaa aaaaaaaaaa  
1410

<210> 5256  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 5256  
Met Val Glu Gly Val Cys Gly Glu Gly Ser Pro Gly Pro Gly Cys Asn  
1 5 10 15  
Leu His Gly Cys Trp Ile Pro Pro His Pro Thr Ser Ala Trp Pro Pro  
20 25 30  
Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro  
35 40 45  
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg  
50 55 60  
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr  
65 70 75 80  
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr  
85 90 95

<210> 5257  
<211> 1366  
<212> DNA  
<213> Homo sapiens

<400> 5257  
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60  
accccgcccg gcagtggcgg gggcctgctc ccagcttctg gctgtcacgg acctgccgac  
120  
tcctctact ccgcatccgc cgagcctgcc cgggtccgcg gccttgtcta tgggcaccac  
180  
ggggatccag ccaaggctcg cgaactcaag aacctggagc tagctgctgt gagaggatca  
240  
gatgtccgtg tgaagatgct ggcgccct atcaatccat ctgacataaa tatgatccaa  
300  
ggaaactacg gactccttcc tgaactgcct gctgttgag ggaacgaagg tgttgacag  
360  
gtggtagcgg tgggcagcaa tgtgaccggg ctgaagccag gagactgggt gattccagca  
420  
aatgctggtt tagactcagg aacctggcgg accgaggctg tgttcagcga ggaagcactg  
480  
atccaagttc cgagtgcacat ccctcttcag agcgctgcc ccctgggtgt caatccctgc  
540  
acagcctaca ggatgttgat ggacttcgag caactgcagc caggggatcc tgtcatccag  
600  
aatgcatcca acagcggagt ggggcaagca gtcacccaga tcgccgcagc cctgggccta  
660  
agaaccatca atgtggctcg agacagacct gatatccaga agctgagtga cagactgaag  
720  
agtctggggg ctgagcatgt catcacagaa gaggagctaa gaaggccga aatgaaaaac  
780

ttctttaagg acatgccccca gccacggcctt gctctcaact gtgttggtgg gaaaagctcc  
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 960  
 ttttggttgt cccagtggaa gaaggatcac agtccagacc agttcaagga gctgacctc  
 1020  
 aactgtgcg atctcatccg ccgaggccag ctacagccc ctgcctgctc ccagggtccc  
 1080  
 ctgcaggact accagtctgc cttggaagcc tccatgaagc cttcatatc ttcaaagcag  
 1140  
 attctacca tgtgatcacc ccaaaagagc tggagtgaca tgggagggga ggcggatctg  
 1200  
 aggggctggg tgcaggcccc tcagttgggg ctccacctt cccagacta ctgttctct  
 1260  
 cactgcctct tctattagg aggatggtga agccagccac ggttttcccc agggccagcc  
 1320  
 ttaaggtatc taataaagtc tgaactctcc cttccaaaaa aaaaaa  
 1366

&lt;210&gt; 5258

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5258

Met	Trp	Val	Cys	Ser	Thr	Leu	Trp	Arg	Val	Arg	Thr	Pro	Pro	Gly	Ser
1				5					10					15	
Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
	35						40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65					70					75				80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
		100						105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
		115					120					125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
	130					135					140				
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150					155				160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
				165				170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
		180						185					190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195					200						205			
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210	215	220
Lys Leu Ser Asp Arg Leu Lys Ser Leu Gly Ala Glu His Val Ile Thr		
225	230	235
Glu Glu Glu Leu Arg Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met		240
	245	250
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr		255
	260	265
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly		270
	275	280
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe		285
	290	295
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp		300
305	310	315
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu		320
	325	330
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu		335
	340	345
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser		350
	355	360
Ser Lys Gln Ile Leu Thr Met		365
370	375	

&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

ctgaattgct gtgagggcag aacacccaag gagacaatag aaaatttggt gcacagaatg  
60  
actgaagaga agacgctgac tgctgagggt ttggtaaaac tcctccaggc tgtgaagacg  
120  
actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac ttgccaagc  
180  
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa  
240  
aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca  
300  
agttta  
306

&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu		
1	5	10
Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys		15
	20	25
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro		30
	35	40
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser		45

50                      55                      60  
 Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met  
 65                      70                      75                      80  
 Thr Ser Leu

<210> 5261

<211> 2394

<212> DNA

<213> Homo sapiens

<400> 5261

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 120  
 atctgtttcc agggagacga gggcgccctgc ccgacccggg acttcgtggt aggagcgctt  
 180  
 atcctgcgct ccacgcggcat ggacccgagc gacatctacg cggtcaccca gatcccgggc  
 240  
 agccgcgaat tcgacgtgag cttccgctca gcggagaagc tggccctggt cctacgcgtc  
 300  
 tacgaggaga agcgggagca ggaggactgc tgggagaaat ttgtggtgct ggggaggagc  
 360  
 aagtcagct tgaagacgct cttcaccctc ttccggaacg agacggtgga cgtggaggac  
 420  
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 480  
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 540  
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 aaggggcagc ccaagacatg ctttaaagt gtgtcccgga cccacatgag cggcagctgc  
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 720  
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 840  
 ctgccagggt gaacacacag ccagcttacc cctcttaagt gccaaaactt ttttttaaac  
 900  
 cattttttat cgtttttgaa ggagatcttt ttaaaacctt caagagacat ctctctatgc  
 960  
 cttcttaaac cgagtttact ccatttcagc ctgttctgaa ttggtgactc tgtcaccaat  
 1020  
 aacgactgcg gagaactgta gcgtgcagat gtgttgcccc tcccttttaa aattttattt  
 1080  
 tcgtttttct attgggtatt tgttttgttt cttgtacttt ttctctctct ccttgcccc  
 1140  
 ctcccgccct ccccgcccca taccttttct tccctggat ttccaccctt tgggctgcct  
 1200  
 tgctcatctt tatgccccag cactaggtac ggggccaac acgtggtagg cactccatca  
 1260

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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

Xaa	Ala	Ala	Met	Ala	Thr	Pro	Ala	Arg	Pro	Gly	Glu	Ala	Glu	Asp	Ala
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			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35					40					45			
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50					55					60				



Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly  
 70 75 80  
 Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu  
 85 90 95  
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu  
 100 105 110  
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe  
 115 120 125  
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp  
 130 135 140  
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp  
 145 150 155 160  
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg  
 165 170 175  
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly  
 180 185 190  
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe  
 195 200 205  
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg  
 210 215 220  
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys  
 225 230 235 240  
 Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln  
 245 250 255  
 Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val  
 260 265 270  
 Ala Gly His  
 275

&lt;210&gt; 5263

&lt;211&gt; 319

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5263

tctagaacaa atgagaacca gtatcagaag gtgacacagg agagtttgtg acagtgccga  
 60  
 tttcagctga cgaattacca gaagatccag cattgctgtc gtttccatca aaagtagctg  
 120  
 gaagtagata cacattatct tctgacaggg gggaagtatc agaagaaagc atgttggttg  
 180  
 tgccttgga aatctttttt ggttgatatt gaaatgccat ttcaccagtt tcaagccttc  
 240  
 ttcccaagag tgacttatct gtatcttact ttgtagcttc cattcagaca ttgttgctct  
 300  
 atttattaaa tccatggct  
 319

&lt;210&gt; 5264

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5264

Met Asp Leu Ile Asn Arg Ala Thr Met Ser Glu Trp Lys Leu Gln Ser  
 1 5 10 15  
 Lys Ile Gln Ile Ser His Ser Trp Glu Glu Gly Leu Lys Leu Val Lys  
 20 25 30  
 Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr  
 35 40 45  
 Cys Phe Leu Leu Ile Leu Pro Pro Cys Gln Lys Ile Met Cys Ile Tyr  
 50 55 60  
 Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val  
 65 70 75 80  
 Ile Arg Gln Leu Lys Ser Ala Leu Ser Gln Thr Leu Leu Cys His Leu  
 85 90 95  
 Leu Ile Leu Val Leu Ile Cys Ser Arg  
 100 105

&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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 120  
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 240  
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 360  
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 420  
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 480  
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1020  
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1080  
cggctgatgg tgcgctcagg gggcagcccc ctatcccccg tgatctatga ttccggacatg  
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gacgatgtcc ccgagcgggg tctcatcagt gacgcccagt ccctctacgt ggagctgctg  
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1260  
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1620  
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1680  
cgccgccttc tctcctctgg gcccgacctc aactgcagt ttcaggcacc gcccgggccc  
1740  
ccaaatccag gcctgggcca gggcttcgta ttgcacttca aagaggctcc gaggaacgac  
1800  
acgtgccccg agctgccacc tccggagtgg ggctggagaa cggcatccca cggggacctg  
1860  
atccggggca cgggtctcac ctaccagtgc gagcctggct acgagctgct aggctccgac  
1920  
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1980  
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2040  
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2100  
gccatgctca cctgctacag ccgggacaca ggcacacca agtggagcga taggggtccc  
2160  
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2220  
acgtgtaca agcaccacta ccaggcgggc gagtctctgc gcttctctg ctatgagggc  
2280  
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&lt;210&gt; 5266

&lt;211&gt; 853

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5266

Met Gly Thr Pro Arg Ala Gln His Pro Pro Pro Pro Gln Leu Leu Phe  
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 Leu Ile Leu Leu Ser Cys Pro Trp Ile Gln Gly Leu Pro Leu Lys Glu  
 20 25 30  
 Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val Ala Ser  
 35 40 45  
 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro  
 50 55 60  
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu  
 65 70 75 80  
 Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr  
 85 90 95  
 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly  
 100 105 110  
 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly  
 115 120 125  
 Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr Gly Ile  
 130 135 140  
 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu Leu Leu  
 145 150 155 160  
 Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala  
 165 170 175  
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn  
 180 185 190  
 Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly

195 200 205  
 Phe Arg Ile His Tyr Gln Ala Tyr Leu Leu Ser Cys Gly Phe Pro Pro  
 210 215 220  
 Arg Pro Ala His Gly Asp Val Ser Val Thr Asp Leu His Pro Gly Gly  
 225 230 235 240  
 Thr Ala Thr Phe His Cys Asp Ser Gly Tyr Gln Leu Gln Gly Glu Glu  
 245 250 255  
 Thr Leu Ile Cys Leu Asn Gly Thr Arg Pro Ser Trp Asn Gly Glu Thr  
 260 265 270  
 Pro Ser Cys Met Ala Ser Cys Gly Gly Thr Ile His Asn Ala Thr Leu  
 275 280 285  
 Gly Arg Ile Val Ser Pro Glu Pro Gly Gly Ala Val Gly Pro Asn Leu  
 290 295 300  
 Thr Cys Arg Trp Val Ile Glu Ala Ala Glu Gly Arg Arg Leu His Leu  
 305 310 315 320  
 His Phe Glu Arg Val Ser Leu Asp Glu Asp Asn Asp Arg Leu Met Val  
 325 330 335  
 Arg Ser Gly Gly Ser Pro Leu Ser Pro Val Ile Tyr Asp Ser Asp Met  
 340 345 350  
 Asp Asp Val Pro Glu Arg Gly Leu Ile Ser Asp Ala Gln Ser Leu Tyr  
 355 360 365  
 Val Glu Leu Leu Ser Glu Thr Pro Ala Asn Pro Leu Leu Leu Ser Leu  
 370 375 380  
 Arg Phe Glu Ala Phe Glu Glu Asp Arg Cys Phe Ala Pro Phe Leu Ala  
 385 390 395 400  
 His Gly Asn Val Thr Thr Thr Asp Pro Glu Tyr Arg Pro Gly Ala Leu  
 405 410 415  
 Ala Thr Phe Ser Cys Leu Pro Gly Tyr Ala Leu Glu Pro Pro Gly Pro  
 420 425 430  
 Pro Asn Ala Ile Glu Cys Val Asp Pro Thr Glu Pro His Trp Asn Asp  
 435 440 445  
 Thr Glu Pro Ala Cys Lys Ala Met Cys Gly Gly Glu Leu Ser Glu Pro  
 450 455 460  
 Ala Gly Val Val Leu Ser Pro Asp Trp Pro Gln Ser Tyr Ser Pro Gly  
 465 470 475 480  
 Gln Asp Cys Val Trp Gly Val His Val Gln Glu Glu Lys Arg Ile Leu  
 485 490 495  
 Leu Gln Val Glu Ile Leu Asn Val Arg Glu Gly Asp Met Leu Thr Leu  
 500 505 510  
 Phe Asp Gly Asp Gly Pro Ser Ala Arg Val Leu Ala Gln Leu Arg Gly  
 515 520 525  
 Pro Gln Pro Arg Arg Arg Leu Leu Ser Ser Gly Pro Asp Leu Thr Leu  
 530 535 540  
 Gln Phe Gln Ala Pro Pro Gly Pro Pro Asn Pro Gly Leu Gly Gln Gly  
 545 550 555 560  
 Phe Val Leu His Phe Lys Glu Val Pro Arg Asn Asp Thr Cys Pro Glu  
 565 570 575  
 Leu Pro Pro Pro Glu Trp Gly Trp Arg Thr Ala Ser His Gly Asp Leu  
 580 585 590  
 Ile Arg Gly Thr Val Leu Thr Tyr Gln Cys Glu Pro Gly Tyr Glu Leu  
 595 600 605  
 Leu Gly Ser Asp Ile Leu Thr Cys Gln Trp Asp Leu Ser Trp Ser Ala  
 610 615 620  
 Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro Gly Glu

625                      630                      635                      640  
 Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly  
                                  645                      650                      655  
 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala  
                                  660                      665                      670  
 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser  
                                  675                      680                      685  
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro  
                                  690                      695                      700  
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln  
 705                      710                      715                      720  
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile  
                                  725                      730                      735  
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
                                  740                      745                      750  
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
                                  755                      760                      765  
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
                                  770                      775                      780  
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
 785                      790                      795                      800  
 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys  
                                  805                      810                      815  
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
                                  820                      825                      830  
 Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu  
                                  835                      840                      845  
 Tyr Glu Val Ser Ile  
 850

&lt;210&gt; 5267

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5267

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 120  
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 180  
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 240  
 ctgggcggcc gtggctatctt ggcatacaca ggctgggtc gaggatacca ggtcaaagga  
 300  
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 360  
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 420  
 cagaaaaata actgggggaca gccagtgtac cagctgcact ctgctattgg acaagaccaa  
 480  
 agacagctat tcttgtacaa aataactatt cctgctctag ccagccagaa tcttgaatc  
 540

caccctttca cacctccaaa gctgagtgcc tttgtggatg aagcaaagac gtatgcagcc  
 600  
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 720  
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 780  
 tatgaggtct acccaacttt tgcagtgact gcccagaggg atggatatgg caccttctga  
 840  
 agatgctttt ttaaatttaa gaataagaca cacaaaactc tatta  
 885

<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

Phe	Gly	Thr	Arg	Gly	Thr	Met	Leu	Gln	Gly	Glu	Tyr	Thr	Tyr	Ser	Leu
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Gly	Gln	Val	Tyr	Asp	Pro	Thr	Thr	Thr	Tyr	Leu	Gly	Ala	Pro	Val	Phe
	20							25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
	35						40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55					60				
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70					75				80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85						90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
		100						105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
		115					120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135					140				
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
145					150					155				160	
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165						170					175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180						185					190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195						200					205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215					220				
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235				240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245							250				255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
			260					265					270		
Gly	Asp	Gly	Tyr	Gly	Thr	Phe									

275

&lt;210&gt; 5269

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

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1177

&lt;210&gt; 5270

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 5270

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Met Asn Glu Gln Ser Gln Lys Thr Gln Asn Ile Ser Ser Phe Asp Ser
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Glu Leu Phe Leu Glu Glu Leu Asp Glu Leu Pro Pro Leu Ser Pro Met
          20           25           30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
          290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
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Glu Lys Phe Leu Lys Thr Leu
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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

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 Gln Asn Pro Ser Leu Leu Leu Val His Lys Gln Lys Leu Ala Lys Trp  
 50 55 60  
 Val Ala Ile Gln Ser Val Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile  
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 Arg Arg Met Met Glu Val Ala Ala Ala Asp Val Lys Gln Leu Gly Gly

85 90 95  
 Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser  
 100 105 110  
 Glu Ile Pro Leu Pro Pro Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro  
 115 120 125  
 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala  
 130 135 140  
 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg  
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 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val  
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 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu  
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 Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly  
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 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe  
 210 215 220  
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 225 230 235 240  
 Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe  
 245 250 255  
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly  
 260 265 270  
 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser  
 275 280 285  
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 290 295 300  
 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp  
 305 310 315 320  
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu  
 325 330 335  
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser  
 340 345 350  
 Leu Ser Leu His Gly Ile Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys  
 355 360 365  
 Thr Val Ile Pro Lys Lys Val Val Gly Lys Phe Ser Ile Arg Leu Val  
 370 375 380  
 Pro  
 385

&lt;210&gt; 5273

&lt;211&gt; 4580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5273

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120

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180

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 4580

&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
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Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25				30			
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35				40					45				
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50				55					60					
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

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65          70          75          80
Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
          85          90          95
Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
          100          105          110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
          115          120          125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
          130          135          140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
145          150          155          160
Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
          165          170          175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
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<210> 5275  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

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<210> 5276  
 <211> 125  
 <212> PRT

<213> Homo sapiens

<400> 5276

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Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20             25             30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35             40             45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50             55             60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65             70             75             80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85             90             95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100            105            110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115            120            125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens



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 Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile  
 35 40 45  
 Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val  
 50 55 60  
 Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg  
 65 70 75 80  
 Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn  
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 Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly  
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<210> 5279

<211> 1225

<212> DNA

<213> Homo sapiens.

<400> 5279  
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 1140  
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<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
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Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
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Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65				70					75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90						95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
		130				135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
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Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170						175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
		180						185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
		195					200					205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
		210				215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250						255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
		260						265					270		
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

275                      280                      285  
 Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys  
 290                      295                      300  
 His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu  
 305                      310                      315                      320  
 Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp  
 325                      330                      335  
 Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn  
 340                      345                      350  
 Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly  
 355                      360                      365  
 Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg  
 370                      375                      380  
 Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile  
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 Lys Ser Phe Ile Trp Glu Leu Ile  
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&lt;210&gt; 5281

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5281

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 336

&lt;210&gt; 5282

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5282

Met Gln Thr Ala Gln Asn Lys Tyr Gln Glu Leu Lys Asn Ile Cys Ser  
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 Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val  
 20                      25                      30  
 Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu  
 35                      40                      45  
 Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val  
 50                      55                      60  
 Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp  
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85

90

&lt;210&gt; 5283

&lt;211&gt; 1989

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5283

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180  
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 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
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Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
		50				55					60				
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65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85					90						95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
		100						105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150					155				160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165					170						175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180				185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

4454

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&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

Xaa	Arg	Val	Gln	Gln	Arg	Met	Glu	Glu	Ser	Glu	Pro	Glu	Arg	Lys	Arg
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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
		20						25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40						45			
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
		50				55					60				
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
		65				70				75				80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85						90					95	
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

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 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
 210 215 220  
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile  
 290 295 300  
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
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 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe  
 355 360 365  
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
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 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
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 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys



530                      535                      540  
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu  
 545                      550                      555                      560  
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp  
                     565                      570                      575  
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly  
                     580                      585                      590  
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln  
                     595                      600                      605  
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser  
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 Ser Met Asp Phe  
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<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

<400> 5287  
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 420  
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 480  
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<210> 5288  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 5288  
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                     20                      25                      30  
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro  
                     35                      40                      45  
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50                      55                      60  
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn  
 65                      70                      75                      80  
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu  
                     85                      90                      95  
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala  
                     100                      105                      110  
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys  
                     115                      120                      125  
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu  
                     130                      135                      140  
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu  
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 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly  
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<210> 5289  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5290  
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 <213> Homo sapiens

<400> 5290  
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 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
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Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
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Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
      35             40             45
Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
      50             55             60
Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

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&lt;210&gt; 5293

&lt;211&gt; 1428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5293

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<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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 145 150 155 160  
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 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp  
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 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val  
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 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly  
 210 215 220  
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 225 230 235 240  
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290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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<400> 5296  
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 35 40 45  
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 50 55 60  
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp  
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 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys  
 85 90 95  
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys  
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&lt;210&gt; 5298

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Pro Cys Asp Cys Gln Thr Trp Lys Asn Trp Leu Gln Lys Ile Thr Glu  
 50 55 60  
 Met Lys Pro Glu Glu Leu Val Gly Val Ser Glu Ala Tyr Glu Asp Ala  
 65 70 75 80  
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 Lys Ser Pro Ile Gln Lys Asn Glu Gly Cys Asn His Met Gln Cys Ala  
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 115 120 125  
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 130 135 140  
 Ile Gln His Val Glu Glu Gln Ser Lys Glu Met Thr Val Glu Ala Glu  
 145 150 155 160  
 Lys Lys His Lys Arg Phe Gln Glu Leu Asp Arg Phe Met His Tyr Tyr  
 165 170 175  
 Thr Arg Phe Lys Asn His Glu His Ser Tyr Gln Leu Glu Gln Arg Leu  
 180 185 190  
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 195 200 205  
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 260 265 270  
 Asn Arg Pro Tyr Leu Arg Thr Pro Arg His Lys Ile Ile Lys Ala Ala  
 275 280 285  
 Cys Leu Val Gln Gln Lys Arg Gln Glu Phe Leu Ala Ser Val Ala Arg  
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 Gly Val Ala Pro Ala Asp Ser Pro Glu Ala Pro Arg Arg Ser Phe Ala  
 305 310 315 320  
 Gly Gly Thr Trp Asp Trp Glu Tyr Leu Gly Phe Ala Ser Pro Glu Glu  
 325 330 335  
 Tyr Ala Glu Phe Gln Tyr Arg Arg Arg His Arg Gln Arg Arg Arg Gly  
 340 345 350  
 Asp Val His Ser Leu Leu Ser Asn Pro Pro Asp Pro Asp Glu Pro Ser  
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<212> DNA
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<212> PRT  
<213> Homo sapiens

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Gln Phe Ala Met Leu Leu Arg Glu Tyr Arg Leu Gly Leu Pro Ile Gln  
35 40 45  
Asp Tyr Cys Thr Gly Leu Leu Lys Leu Tyr Gly Asp Arg Arg Lys Phe  
50 55 60  
Leu Leu Leu Gly Met Arg Pro Phe Ile Pro Asp Gln Asp Ile Gly Tyr  
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Phe Glu Gly Phe Leu Glu Gly Val Gly Ile Arg Glu Gly Gly Ile Leu  
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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

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<213> Homo sapiens

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<213> Homo sapiens

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&lt;210&gt; 5308

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
		35				40						45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
	50				55						60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70				75					80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85				90						95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100				105						110		

&lt;210&gt; 5309

&lt;211&gt; 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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360  
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420  
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1080  
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1380  
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1440  
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1500



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 1920  
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 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
		35					40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50					55				60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65				70					75				80		
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
			85					90					95		
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105				110			
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
		115				120					125				
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135				140					
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145				150					155				160		
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
		180					185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195					200					205				
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
      325              330              335
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
      340              345              350
Gln Cys Thr Val Thr Glu Val
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<210> 5311  
 <211> 572  
 <212> DNA  
 <213> Homo sapiens

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 360  
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 420  
 gtgcaattgt ggaagagact caaggcctat aatagagtga tctatgttca aaactgtcca  
 480  
 gaaacaagca aaaagaatat ttttgaaaaa tctccactaa cagagcccaa ctttgaaaat  
 540  
 aaacatggat atggaatctg tcattccgac ac  
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<210> 5312  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 5312  
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Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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120
gtgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcg gaggatcgcc
180
cagcagctgc cccggcaaca caggcaattc cacgttgtgt gcgactggcc tgtgcatatg
240
gaggtgttca gtgacctggc cctggacact cctgctaaca ggacacacac atactctctt
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acacacatac atgtccacac ac
322

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&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

```

Arg Gly Arg Arg Glu Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
  1           5           10           15
Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
      20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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	35		40		45														
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro				
	50					55					60								
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met				
65				70					75					80					
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His				
			85					90					95						
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr									
			100					105											

&lt;210&gt; 5315

&lt;211&gt; 2298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5315

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120
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420
aactgcaggc agatcccaa gtcctcagg cagctgcagg aattcacaga cctcgggcac
480
cgcctcgact gtctggacct gaaaggtgag aagcttgact acaagacctg tgaggccctg
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600
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1020
gtgctagact cgggtctggc ctacatctgc gagggcctca aggagcagag gaaggggctg
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gtgacctggt tgctgtggaa caaccagctc acgcacacag gcatggcctt cctgggcatg
1140

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&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
			35				40				45				
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

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 Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala  
 85 90 95  
 Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp  
 100 105 110  
 Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu  
 115 120 125  
 Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala  
 130 135 140  
 Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn  
 145 150 155 160  
 Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys  
 165 170 175  
 Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn  
 180 185 190  
 Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys  
 195 200 205  
 Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly  
 210 215 220  
 Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val  
 225 230 235 240  
 Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe  
 245 250 255  
 Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu  
 260 265 270  
 Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly  
 275 280 285  
 Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys  
 290 295 300  
 Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser  
 305 310 315 320  
 Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly  
 325 330 335  
 Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu  
 340 345 350  
 Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe  
 355 360 365  
 Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys  
 370 375 380  
 Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Lys Glu Gln Pro Pro  
 385 390 395 400  
 Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro  
 405 410 415  
 Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala  
 420 425 430  
 Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu  
 435 440 445  
 Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp  
 450 455 460  
 Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro  
 465 470 475 480  
 Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu

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Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser	
				500				505					510			
Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu	
				515			520					525				
Glu	Glu	Leu	Leu	Leu	Glu	Ala	Ser	Gln	Glu	Ser	Gly	Gln	Glu	Thr	Leu	
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&lt;210&gt; 5317

&lt;211&gt; 889

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5317

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&lt;210&gt; 5318

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<213> Homo sapiens

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&lt;210&gt; 5322

&lt;211&gt; 209

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 Lys Gln Gly Thr Asp Gly Lys Lys Lys Gly Gly Arg Gly Ser His Arg  
 85 90 95  
 Ala Lys Asn Lys Ser Lys Glu Thr Phe Leu Gly Ser Val Lys Glu Thr  
 100 105 110  
 Phe Asp Ala Met Lys Asn Ser Thr Lys Glu Phe Val Arg His His Lys  
 115 120 125  
 Glu Lys Ile Lys Gln Ala Lys Glu Ala Val Lys Glu Asn Leu Lys Lys  
 130 135 140  
 Phe Ser Asp Ser Val Lys Ser Thr Phe Arg His Phe Lys Asp Thr Thr  
 145 150 155 160  
 Lys Asn Ile Phe Asp Glu Lys Gly Asn Lys Arg Phe Gly Ala Thr Lys  
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 Glu Ala Ala Glu Lys Pro Arg Thr Val Phe Ser Asp Tyr Leu His Pro

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 Gln Tyr Lys Ala Pro Thr Glu Asn His His Asn Arg Pro Tyr Tyr Ala  
 195 200 205  
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<210> 5323  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<400> 5323  
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 180  
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 360  
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<210> 5324  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5324  
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 Met Arg Thr Leu Gly Thr Thr Ser Thr Ser Pro Pro Tyr Ser Ala His  
 35 40 45  
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln  
 50 55 60  
 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser  
 65 70 75 80  
 Leu Arg Arg Ala Ser Gln His Ala Val Met Leu Pro Gln Leu Leu Ala  
 85 90 95  
 Val Ser Cys Leu Pro Asp Pro Gly Arg  
 100 105

<210> 5325  
 <211> 938  
 <212> DNA  
 <213> Homo sapiens



&lt;400&gt; 5325

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 180  
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 240  
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 420  
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 780  
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 938

&lt;210&gt; 5326

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5326

Met Trp Cys Leu Leu Arg Gly Leu Gly Arg Pro Gly Ala Leu Ala Arg  
 1 5 10 15  
 Gly Ala Leu Gly Gln Gln Gln Ser Leu Gly Ala Arg Ala Leu Ala Ser  
 20 25 30  
 Ala Gly Ser Glu Ser Arg Asp Glu Tyr Ser Tyr Val Val Val Gly Ala  
 35 40 45  
 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala  
 50 55 60  
 Glu Arg Val Leu Leu Leu Ala Gly Pro Lys Asp Val Arg Ala Gly  
 65 70 75 80  
 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala  
 85 90 95  
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

	100		105		110										
Arg	Gly	Leu	Asp	Gly	Arg	Val	Leu	Tyr	Trp	Pro	Arg	Gly	Arg	Val	Trp
	115		120		125										
Gly	Gly	Ser	Ser	Ser	Leu	Asn	Ala	Met	Val	Tyr	Val	Arg	Gly	His	Ala
	130		135		140										
Glu	Asp	Tyr	Glu	Arg	Trp	Gln	Arg	Gln	Gly	Ala	Arg	Gly	Trp	Asp	Tyr
145			150		155					160					
Ala	His	Cys	Leu	Pro	Tyr	Phe	Arg	Lys	Ala	Gln	Gly	His	Xaa	Ala	Gly
		165			170					175					
Arg	Gln	Pro	Val	Pro	Gly	Arg	Asp	Gly	Pro	Leu	Arg	Val	Ser	Arg	Gly
	180				185					190					
Lys	Thr	Asn	His	Pro	Leu	His	Cys	Ala	Phe	Leu	Glu	Ala	Thr	Gln	Gln
	195				200					205					
Ala	Gly	Tyr	Pro	Leu	Thr	Glu	Asp	Met	Asn	Gly	Phe	Gln	Gln	Glu	Gly
	210				215					220					
Phe	Gly	Trp	Met	Asp	Met	Thr	Ile	His	Glu						
225					230										

&lt;210&gt; 5327

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5327

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180  
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900

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&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

Glu	His	Ser	Gly	Leu	Tyr	Val	Asn	Asn	Asn	Gly	Ile	Ile	Ser	Phe	Leu
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Lys	Glu	Val	Ser	Gln	Phe	Thr	Pro	Val	Ala	Phe	Pro	Ile	Ala	Lys	Asp
		20					25					30			
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35				40					45				
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

4500

485 490 495  
 Asp Asp Ser Tyr Thr Cys Glu Cys Pro Arg Gly Phe His Gly Lys His  
 500 505 510  
 Cys Glu Lys Ala Arg Pro His Leu Cys Ser Ser Gly Pro Cys Arg Asn  
 515 520 525  
 Gly Gly Thr Cys Lys Glu Ala Gly Gly Glu Tyr His Cys Ser Cys Pro  
 530 535 540  
 Tyr Arg Phe Thr Gly Arg His Cys Glu Ile Gly Lys Pro Asp Ser Cys  
 545 550 555 560  
 Ala Ser Gly Pro Cys His Asn Gly Gly Thr Cys Phe His Tyr Ile Gly  
 565 570 575  
 Lys Tyr Lys Cys Asp Cys Pro Pro Gly Phe Ser Gly Arg His Cys Glu  
 580 585 590  
 Ile Ala Pro Ser Pro Cys Phe Arg Ser Pro Cys Val Asn Gly Gly Thr  
 595 600 605  
 Cys Glu Asp Arg Asp Thr Asp Phe Phe Cys His Cys Gln Ala Gly Tyr  
 610 615 620  
 Met Gly Arg Arg Cys Gln Ala Glu Val Asp Cys Gly Pro Pro Glu Glu  
 625 630 635 640  
 Val Lys His Ala Thr Leu Arg Phe Asn Gly Thr Arg Leu Gly Ala Val  
 645 650 655  
 Ala Leu Tyr Ala Cys Asp Arg Gly Tyr Ser Leu Ser Ala Pro Ser Arg  
 660 665 670  
 Ile Arg Val Cys Gln Pro His Gly Val Trp Ser Glu Pro Pro Gln Cys  
 675 680 685  
 Leu Gly Asp Ser Val Gly  
 690

&lt;210&gt; 5329

&lt;211&gt; 2582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5329

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 420  
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660  
cgttttcttc ctgaagaaga gaaacttact gaacaagaga gatcaaaaag atttgaaaag  
720  
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 2520  
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 2580  
 aa  
 2582

&lt;210&gt; 5330

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5330

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 Gln Asp Asn Ile Gly Glu Leu Asp Leu Asp Lys Gln Ser Glu Leu Arg  
 20 25 30  
 Ala Leu Arg Lys Lys Glu Leu Asp Glu Glu Glu Ser Ile Arg Lys Lys  
 35 40 45  
 Ala Val Gln Phe Gly Thr Gly Glu Leu Cys Asp Ala Ile Ser Ala Val  
 50 55 60  
 Glu Glu Lys Val Ser Tyr Leu Arg Pro Leu Asp Phe Glu Glu Ala Arg  
 65 70 75 80  
 Glu Leu Phe Leu Leu Gly Gln His Tyr Val Phe Glu Ala Lys Glu Phe  
 85 90 95  
 Phe Gln Ile Asp Gly Tyr Val Thr Asp His Ile Glu Val Val Gln Asp  
 100 105 110  
 His Ser Ala Leu Phe Lys Val Leu Ala Phe Phe Glu Thr Asp Met Glu  
 115 120 125  
 Arg Arg Cys Lys Met His Lys Arg Arg Ile Ala Met Leu Glu Pro Leu  
 130 135 140  
 Thr Val Asp Leu Asn Pro Gln Tyr Tyr Leu Leu Val Asn Arg Gln Ile  
 145 150 155 160  
 Gln Phe Glu Ile Ala His Ala Tyr Tyr Asp Met Met Asp Leu Lys Val  
 165 170 175  
 Ala Ile Ala Asp Arg Leu Arg Asp Pro Asp Ser His Ile Val Lys Lys  
 180 185 190  
 Ile Asn Asn Leu Asn Lys Ser Ala Leu Lys Tyr Tyr Gln Leu Phe Leu  
 195 200 205  
 Asp Ser Leu Arg Asp Pro Asn Lys Val Phe Pro Glu His Ile Gly Glu  
 210 215 220  
 Asp Val Leu Arg Pro Ala Met Leu Ala Lys Phe Arg Val Ala Arg Leu  
 225 230 235 240  
 Tyr Gly Lys Ile Ile Thr Ala Asp Pro Lys Lys Glu Leu Glu Asn Leu  
 245 250 255  
 Ala Thr Ser Leu Glu His Tyr Lys Phe Ile Val Asp Tyr Cys Glu Lys

260 265 270  
 His Pro Glu Ala Ala Gln Glu Ile Glu Val Glu Leu Glu Leu Ser Lys  
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 Glu Met Val Ser Leu Leu Pro Thr Lys Met Glu Arg Phe Arg Thr Lys  
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 Met Ala Leu Thr  
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<210> 5331

<211> 1069

<212> DNA

<213> Homo sapiens

<400> 5331

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 960  
 tgtttacctg ttgtggattt tagatgtaac aaatgtttat acaatacat acatgtacac  
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<210> 5332

<211> 61

<212> PRT



<213> Homo sapiens

<400> 5332

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Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	Asn	Lys	Thr	Arg	Gly	Lys
		20						25					30		
Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
		35					40					45			
Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Xaa	Gly	Arg	Gly			
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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120
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240
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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5334

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&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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4510

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&lt;211&gt; 2742

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 217

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<213> Homo sapiens

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5341

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<210> 5342
<211> 690
<212> PRT
<213> Homo sapiens
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Leu	Trp	Gly	Leu	Gly	Gln	Pro	Val	Trp	Pro	Val	Ala	Val	Ala	Leu	Thr
			20					25					30		
Leu	Arg	Trp	Leu	Leu	Gly	Asp	Pro	Thr	Cys	Cys	Val	Leu	Leu	Gly	Leu
			35				40					45			
Ala	Met	Leu	Ala	Arg	Pro	Trp	Leu	Gly	Pro	Trp	Val	Pro	His	Gly	Leu
			50			55					60				
Ser	Leu	Ala	Ala	Ala	Ala	Leu	Ala	Leu	Thr	Leu	Leu	Pro	Ala	Arg	Leu
65					70					75				80	
Pro	Pro	Gly	Leu	Arg	Trp	Leu	Pro	Ala	Asp	Val	Ile	Phe	Leu	Ala	Lys
				85					90					95	
Ile	Leu	His	Leu	Gly	Leu	Lys	Ile	Arg	Gly	Cys	Leu	Ser	Arg	Gln	Pro

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Pro Asp Thr Phe Val Asp Ala Phe Glu Arg Arg Ala Arg Ala Gln Pro
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      130      135      140
Phe Gly Glu Leu Asp Ala Arg Ala Cys Gln Ala Ala Trp Ala Leu Lys
      145      150      155      160
Ala Glu Leu Gly Asp Pro Ala Ser Leu Cys Ala Gly Glu Pro Thr Ala
      165      170      175
Leu Leu Val Leu Ala Ser Gln Ala Val Pro Ala Leu Cys Met Trp Leu
      180      185      190
Gly Leu Ala Lys Leu Gly Cys Pro Thr Ala Trp Ile Asn Pro His Gly
      195      200      205
Arg Gly Met Pro Leu Ala His Ser Val Leu Ser Ser Gly Ala Arg Val
      210      215      220
Leu Val Val Asp Pro Asp Leu Arg Glu Ser Leu Glu Glu Ile Leu Pro
      225      230      235      240
Lys Leu Gln Ala Glu Asn Ile Arg Cys Phe Tyr Leu Ser His Thr Ser
      245      250      255
Pro Thr Pro Gly Val Gly Ala Leu Gly Ala Ala Leu Asp Ala Ala Pro
      260      265      270
Ser His Pro Val Pro Ala Asp Leu Arg Ala Gly Ile Thr Trp Arg Ser
      275      280      285
Pro Ala Leu Phe Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Pro
      290      295      300
Ala Ile Leu Thr His Glu Arg Val Leu Gln Met Ser Lys Met Leu Ser
      305      310      315      320
Leu Ser Gly Ala Thr Ala Asp Asp Val Val Tyr Thr Val Leu Pro Leu
      325      330      335
Tyr His Val Met Gly Leu Val Val Gly Ile Leu Gly Cys Leu Asp Leu
      340      345      350
Gly Ala Thr Cys Val Leu Ala Pro Lys Phe Ser Thr Ser Cys Phe Trp
      355      360      365
Asp Asp Cys Arg Gln His Gly Val Thr Val Ile Leu Tyr Val Gly Glu
      370      375      380
Leu Leu Arg Tyr Leu Cys Asn Ile Pro Gln Gln Pro Glu Asp Arg Thr
      385      390      395      400
His Thr Val Arg Leu Ala Met Gly Asn Gly Leu Arg Ala Asp Val Trp
      405      410      415
Glu Thr Phe Gln Gln Arg Phe Gly Pro Ile Arg Ile Trp Glu Val Tyr
      420      425      430
Gly Ser Thr Glu Gly Asn Met Gly Leu Val Asn Tyr Val Gly Arg Cys
      435      440      445
Gly Ala Leu Gly Lys Met Ser Cys Leu Leu Arg Met Leu Ser Pro Phe
      450      455      460
Glu Leu Val Gln Phe Asp Met Glu Ala Ala Glu Pro Val Arg Asp Asn
      465      470      475      480
Gln Gly Phe Cys Ile Pro Val Gly Leu Gly Glu Pro Gly Leu Leu Leu
      485      490      495
Thr Lys Val Val Ser Gln Gln Pro Phe Val Gly Tyr Arg Gly Pro Arg
      500      505      510
Glu Leu Ser Glu Arg Lys Leu Val Arg Asn Val Arg Gln Ser Gly Asp
      515      520      525
Val Tyr Tyr Asn Thr Gly Asp Val Leu Ala Met Asp Arg Glu Gly Phe

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530                      535                      540  
 Leu Tyr Phe Arg Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu  
 545                      550                      555                      560  
 Asn Val Ser Thr His Glu Val Glu Gly Val Leu Ser Gln Val Asp Phe  
                          565                      570                      575  
 Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly  
                          580                      585                      590  
 Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp  
                          595                      600                      605  
 Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala  
                          610                      615                      620  
 Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr  
 625                      630                      635                      640  
 Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly  
                          645                      650                      655  
 Ile Val Val Asp Pro Leu Phe Val Leu Asp Asn Arg Ala Gln Ser Phe  
                          660                      665                      670  
 Arg Pro Leu Thr Ala Glu Met Tyr Gln Ala Val Cys Glu Gly Thr Trp  
                          675                      680                      685  
 Lys Leu  
 690

&lt;210&gt; 5343

&lt;211&gt; 752

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5343

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 180  
 gggaatcaac ccactgtcct ggagacggcg gaagcattcc acccagggaa gaacaaatgg  
 240  
 gagatcctcc ctgccatgcc cacaccccg cgtgcctgct ccagcatagt cgtcaagaac  
 300  
 tgccctctcg ctgtgggagg tgtcaaccag ggtctgagtg acgcagtgga ggcctgtgt  
 360  
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 420  
 tcttaacatg aggaatgac ttgtccaagc agtcggggct acttccaaga atgtcagctc  
 480  
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 660  
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 752

<210> 5344  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 5344  
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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly  
 35 40 45  
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
 50 55 60  
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
 65 70 75 80  
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
 85 90 95  
 Val Val Lys Asn Cys Leu Leu Ala Val Gly Gly Val Asn Gln Gly Leu  
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 Ser Asp Ala Val Glu Ala Leu Cys Val Ser Asp Ser  
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<210> 5345  
 <211> 1912  
 <212> DNA  
 <213> Homo sapiens

<400> 5345  
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 gactcttccc ctgccaagaa aactcgtaga tgccagagac aggagtcgaa aaagatgcct  
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 240  
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 gaaaagtttg agaaggtgcc tggaaaatat gatatgctac agatggacta tgccaccaat  
 660  
 actcaggatg aagaggaaac aaagaaagag gaatctctta aatctccctt gaagccagag  
 720

tcacagctag atcttcgggt acaggagtta ataaagttga tctgtaattgt tcaggccatg  
 780  
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 1260  
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 1800  
 gagatctgat cttcaagcaa gaaaataagc agtgtgtgac ttgtgaattt tgtgatattt  
 1860  
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 1912

&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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 Ser Val Lys Ala Leu Leu Leu Lys Gly Lys Ala Pro Val Asp Pro Glu  
 35 40 45  
 Cys Thr Ala Lys Val Gly Lys Ala His Val Tyr Cys Glu Gly Asn Asp



50 55 60  
 Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn  
 65 70 75 80  
 Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe  
 85 90 95  
 Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser  
 100 105 110  
 Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln  
 115 120 125  
 Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys  
 130 135 140  
 Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala  
 145 150 155 160  
 Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys  
 165 170 175  
 Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu  
 180 185 190  
 Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu  
 195 200 205  
 Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala  
 210 215 220  
 Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile  
 225 230 235 240  
 Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe  
 245 250 255  
 Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile  
 260 265 270  
 Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu  
 275 280 285  
 Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser  
 290 295 300  
 Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu  
 305 310 315 320  
 Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr  
 325 330 335  
 Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu  
 340 345 350  
 Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg  
 355 360 365  
 Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser  
 370 375 380  
 Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu  
 385 390 395 400  
 Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp  
 405 410 415  
 Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn  
 420 425 430  
 Thr Gly Leu Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu  
 435 440 445  
 Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His  
 450 455 460  
 Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val  
 465 470 475 480  
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<210> 5347<211> 2893
<212> DNA
<213> Homo sapiens
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4522

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1320  
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1380  
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1440  
ctgtatgacc ttgacataaa tatatttgat gagataaact taatgtcatt ggccacagaa  
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1560  
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1620  
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1680  
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1740  
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1800  
cacttacagc caactgcacc agaattctact tctgaacctt ttccgtggcc tgggaagtca  
1860  
cagaagataa ggagtagata ccttgaagac acagatagaa acttgagccg tgatgaacag  
1920  
cgtgctaaag ctttgcatat ccctttttct gtagatgaaa ttgtcggcat gcctgttgat  
1980  
tctttcaata gcatgttaag tagatattat ctgacagacc tacaagtctc acttatccgt  
2040  
gacatcagac gaagagggaa aaataaagtt gctgcgaga actgtcgtaa acgcaaattg  
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gacataatth tgaatttaga agatgatgta tgtaacttgc aagcaaagaa ggaaactctt  
2160  
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2220  
ctttatcatg atatttttag tagattaaga gatgaccaag gtaggccagt caatcccaac  
2280  
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2460  
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2580  
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2700  
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2760  
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<210> 5348  
 <211> 694  
 <212> PRT  
 <213> Homo sapiens

<400> 5348  
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 20 25 30  
 Tyr Leu Leu Leu Pro Pro Pro Thr Leu Leu Gln Asp Glu Leu Leu Phe  
 35 40 45  
 Leu Gly Gly Pro Ala Ser Ser Ala Tyr Ala Leu Ser Pro Phe Ser Ala  
 50 55 60  
 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu  
 65 70 75 80  
 Leu Asp Pro Ala Ala Pro Pro Glu Gly Gln Leu Leu Arg Glu Val Arg  
 85 90 95  
 Ala Leu Gly Val Pro Phe Val Pro Arg Thr Ser Val Asp Ala Trp Leu  
 100 105 110  
 Val His Ser Val Ala Ala Gly Ser Ala Asp Glu Ala His Gly Leu Leu  
 115 120 125  
 Gly Ala Ala Ala Ala Ser Ser Thr Gly Gly Ala Gly Ala Ser Val Asp  
 130 135 140  
 Gly Gly Ser Gln Ala Val Gln Gly Gly Cys Gly Asp Ser Arg Ala Ala  
 145 150 155 160  
 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
 165 170 175  
 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn  
 180 185 190  
 Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His  
 195 200 205  
 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln  
 210 215 220  
 Gln Asn Asp Asp Asp Glu Asn Lys Ile Ala Glu Lys Pro Asp Trp Glu  
 225 230 235 240  
 Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr  
 245 250 255  
 Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln  
 260 265 270  
 Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro  
 275 280 285  
 Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn  
 290 295 300  
 Phe Ser Gln Ala Ile Ser Gln Asp Val Asn Leu His Glu Ala Ile Leu  
 305 310 315 320  
 Leu Cys Pro Asn Asn Thr Phe Arg Arg Asp Pro Thr Ala Arg Thr Ser  
 325 330 335  
 Gln Ser Gln Glu Pro Phe Leu Gln Leu Asn Ser His Thr Thr Asn Pro

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Glu Gln Thr Leu Pro Gly Thr Asn Leu Thr Gly Phe Leu Ser Pro Val
          355          360          365
Asp Asn His Met Arg Asn Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu
          370          375          380
Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu
          385          390          395          400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
          405          410          415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
          420          425          430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
          435          440          445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
          450          455          460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
          465          470          475          480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
          485          490          495
Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
          500          505          510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
          515          520          525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
          530          535          540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
          545          550          555          560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
          565          570          575Leu Ile Arg
Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala
          580          585          590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
          595          600          605
Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
          610          615          620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
          625          630          635          640
Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro
          645          650          655
Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
          660          665          670
Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr
          675          680          685
Gln Lys Gly Lys Arg Lys
          690

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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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Gln	Asp	Ala	Leu	Ser	Lys	Ser	Leu	Gln	Gln	Asn	Leu	Pro	Ser	Arg	Ser
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Val	Ser	Lys	Pro	Ser	Leu	Phe	Ser	Ser	Val	Gln	Leu	Tyr	Arg	Gln	Ser
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Ser	Lys	Met	Cys	Gly	Thr	Val	Phe	Thr	Gly	Ala	Ser	Arg	Phe	Arg	Cys
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<213> Homo sapiens

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<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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Ala	Gly	Phe	Ser	Ser	Glu	Ser	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Ser	Ser
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Cys	Ser	Leu	Leu	Ile	Thr	Thr	Asp	Ala	Phe	Tyr	Arg	Gly	Glu	Lys	Leu
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 Tyr Lys Val Thr Lys Phe Tyr Thr Ala Pro Thr Ala Ile Arg Leu Leu  
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 Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly  
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 Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser  
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 Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys  
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys  
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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

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<212> DNA
<213> Homo sapiens
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5003

&lt;210&gt; 5360

&lt;211&gt; 1406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5360

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 35 40 45  
 Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His  
 50 55 60  
 Leu Glu Gln Gln Leu Pro Val Leu Leu Gln Thr Leu Leu Gly Asn Asp  
 65 70 75 80  
 His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala  
 85 90 95  
 Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser  
 100 105 110  
 Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn  
 115 120 125  
 Gly Ser Lys Trp Tyr Gly Arg Arg Ser Arg Pro Glu Leu Cys Asp Ala  
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 Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu  
 145 150 155 160  
 Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro  
 165 170 175  
 Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu  
 180 185 190  
 Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly  
 195 200 205  
 Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln  
 210 215 220  
 Ile Arg Gly Val Trp Glu Glu Leu Gly Val Gly Ser Ser Gly His Leu  
 225 230 235 240  
 Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly  
 245 250 255  
 Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp  
 260 265 270  
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 275 280 285  
 His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser  
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 325 330 335  
 Ser Ser Ile Asp Asp Gly Ser Gly Phe Ala Phe Pro Asp Gln Val Leu  
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 Ala Met Trp Thr Gln Glu Gly Ile Gln Asn Gly Arg Glu Ile Leu Gln  
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 Ser Leu Asp Phe Ser Val Asp Glu Lys Val Asn Leu Leu Glu Leu Thr  
 370 375 380  
 Trp Ala Leu Asp Asn Glu Leu Met Thr Val Asp Ser Ala Val Gln Gln

4540

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 835 840 845  
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 850 855 860  
 Glu Gly Thr Arg Gly Leu Leu Pro Leu Arg Pro Gly Cys Gly Glu Arg  
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 Pro Leu Ala Trp Leu Ala Pro Gly Asp Gly Arg Glu Ser Glu Glu Ala  
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 Ala Gly Ala Gly Pro Arg Arg Arg Gln Ala Gln Asp Thr Glu Ala Thr  
 900 905 910  
 Gln Ser Pro Ala Pro Ala Pro Ala Pro Ala Ser His Gly Pro Ser Glu  
 915 920 925  
 Arg Trp Ser Arg Met Gln Pro Cys Gly Val Asp Gly Asp Ile Val Pro  
 930 935 940  
 Lys Glu Pro Glu Pro Phe Gly Ala Ser Ala Ala Gly Leu Glu Gln Pro  
 945 950 955 960  
 Gly Ala Arg Glu Leu Pro Leu Leu Gly Thr Glu Arg Asp Ala Ser Gln  
 965 970 975  
 Thr Gln Pro Arg Met Trp Glu Pro Pro Leu Arg Pro Ala Ala Ser Cys  
 980 985 990  
 Arg Gly Gln Ala Glu Arg Leu Gln Ala Ile Gln Glu Glu Arg Ala Arg  
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 Ser Trp Ser Arg Gly Thr Gln Glu Gln Ala Ser Glu Gln Gln Ala Arg  
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 Gly Ser Trp Gln Glu Gln Leu Ala Ala Pro Glu Glu Gly Glu Thr Lys  
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 1090 1095 1100  
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 Lys Asn Asp Leu Gly Arg Val Arg Gln Glu Leu Glu Ala Ala Glu Ser  
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 Thr His Asp Ala Gln Arg Lys Glu Ile Glu Val Leu Lys Lys Asp Lys  
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 1365 1370 1375  
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 1380 1385 1390  
 Asn Lys Leu Val Ser Arg Ile Ala Pro Ala Ala Leu Ser Val  
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&lt;210&gt; 5361

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5361

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<210> 5362

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

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			20					25					30		
Trp	Ala	Ser	Pro	Ser	Gly	Phe	Phe	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Arg
		35				40						45			
Trp	Ser	Leu	Ala	Leu	Xaa	Ala	Gln	Thr	Glu	Val	Gln	Arg	Pro	Asp	Leu
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Asn	Ser	Leu	Gln	Pro	Pro	Pro	Gly	Phe	Lys	Gly	Phe	Ser	Cys	Leu	
65					70				75					80	
Ser	Leu	Leu	Ser	Ser	Trp	Asp	Tyr	Arg	His	Pro	Pro	Ala	Arg	Pro	Ala
				85					90					95	
Phe	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Leu	Ser	Cys	Trp	Pro	Gly
			100					105						110	
Trp	Ser	Arg	Thr	Pro	Asp	Leu	Met	Xaa	Ser	Thr	Arg	Leu	Gly	Leu	Pro
		115				120						125			
Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
		130				135					140				
Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
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Asn	Glu	Lys	Ile	His											
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<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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<210> 5364

<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

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			20					25				30			
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
		35				40					45				
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
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Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
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Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
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Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
		100						105				110			
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
		115					120					125			
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
	130					135					140				
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145				150				155				160			
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
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Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
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<210> 5365

<211> 1824



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5365

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&lt;210&gt; 5366

&lt;211&gt; 477

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5366

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 Ser Ile Cys Leu Asp Tyr Phe Thr Asp Pro Val Met Thr Thr Cys Gly  
 20 25 30  
 His Asn Phe Cys Arg Ala Cys Ile Gln Leu Ser Trp Glu Lys Ala Arg  
 35 40 45  
 Gly Lys Lys Gly Arg Arg Lys Arg Lys Gly Ser Phe Pro Cys Pro Glu  
 50 55 60  
 Cys Arg Glu Met Ser Pro Gln Arg Asn Leu Leu Pro Asn Arg Leu Leu  
 65 70 75 80  
 Thr Lys Val Ala Glu Met Ala Gln Gln His Pro Gly Leu Gln Lys Gln  
 85 90 95  
 Asp Leu Cys Gln Glu His His Glu Pro Leu Lys Leu Phe Cys Gln Lys  
 100 105 110  
 Asp Gln Ser Pro Ile Cys Val Val Cys Arg Glu Ser Arg Glu His Arg  
 115 120 125  
 Leu His Arg Val Leu Pro Ala Glu Glu Ala Val Gln Gly Tyr Lys Leu  
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 Lys Leu Glu Glu Asp Met Glu Tyr Leu Arg Glu Gln Ile Thr Arg Thr  
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 Gly Asn Leu Gln Ala Arg Glu Glu Gln Ser Leu Ala Glu Trp Gln Gly  
 165 170 175  
 Lys Val Lys Glu Arg Arg Glu Arg Ile Val Leu Glu Phe Glu Lys Met  
 180 185 190  
 Asn Leu Tyr Leu Val Glu Glu Glu Gln Arg Leu Leu Gln Ala Leu Glu  
 195 200 205  
 Thr Glu Glu Glu Glu Thr Ala Ser Arg Leu Arg Glu Ser Val Ala Cys  
 210 215 220  
 Leu Asp Arg Gln Gly His Ser Leu Glu Leu Leu Leu Gln Leu Glu  
 225 230 235 240  
 Glu Arg Ser Thr Gln Gly Pro Leu Gln Met Leu Gln Asp Met Lys Glu  
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 Pro Leu Ser Arg Lys Asn Asn Val Ser Val Gln Cys Pro Glu Val Ala  
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 Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly  
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 Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala  
 325 330 335  
 Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr  
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 Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro  
 370 375 380  
 Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu  
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 Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser  
 405 410 415  
 His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr  
 420 425 430  
 Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe  
 435 440 445  
 Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly  
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 Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly  
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&lt;210&gt; 5367

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5367

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&lt;210&gt; 5368

<211> 137  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr  
 50 55 60  
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile  
 65 70 75 80  
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu  
 85 90 95  
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu  
 100 105 110  
 Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp  
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 His Gln Ala Pro Glu Ala Ala Pro Thr  
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 <212> DNA  
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<211> 148  
 <212> PRT  
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<400> 5370  
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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys  
 35 40 45  
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro  
 50 55 60  
 Pro His Leu Pro Ala Ser Ser Leu Pro His His Pro Ser Ser Ala  
 65 70 75 80  
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro  
 85 90 95  
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg  
 100 105 110  
 Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Pro Leu Pro Pro Ser Pro  
 115 120 125  
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 130 135 140  
 Pro Phe Leu Phe  
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<210> 5371  
 <211> 1177  
 <212> DNA  
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<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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		20					25				30		Gln
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val
		35				40					45		Leu
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys
		50				55				60			His
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala
65					70				75				80
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln
			85					90					95
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn
		100						105				110	Arg
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val
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Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp
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Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn
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Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala
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Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly
		180						185				190	Glu
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr
		195				200						205	Trp
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met
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<210> 5373
<211> 4221
<212> DNA
<213> Homo sapiens
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<210> 5374

<211> 886

<212> PRT

<213> Homo sapiens

<400> 5374

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Ser	Phe	Glu	Glu	Phe	Glu	Arg	Arg	Arg	Glu	Glu	Arg	Lys	Thr	Arg	Glu
		20					25						30		
Lys	Lys	Ser	Leu	Gln	Glu	Lys	Gly	Lys	Leu	Ser	Ala	Glu	Glu	Asn	Pro
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Asp	Asp	Ser	Glu	Val	Pro	Ser	Ser	Ser	Gly	Ile	Asn	Ser	Thr	Lys	Ser
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Gln	Asp	Lys	Asp	Val	Asn	Glu	Gly	Glu	Thr	Ser	Asp	Gly	Val	Arg	Lys
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Ser	Val	His	Lys	Val	Phe	Ala	Ser	Met	Leu	Gly	Glu	Asn	Glu	Asp	Asp
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Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Thr
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Asn	Arg	Glu	Thr	Lys	Lys	Met	Met	Lys	Glu	Lys	Arg	Pro	Arg	Ser	Lys
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Leu	Pro	Arg	Ala	Leu	Arg	Gly	Leu	Met	Gly	Glu	Ala	Asn	Ile	Arg	Phe
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Ala	Arg	Gly	Glu	Arg	Glu	Glu	Ala	Ile	Leu	Met	Cys	Met	Glu	Ile	Ile
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Arg	Gln	Ala	Pro	Leu	Ala	Tyr	Glu	Pro	Phe	Ser	Thr	Leu	Ala	Met	Ile
		180						185					190		
Tyr	Glu	Asp	Gln	Gly	Asp	Met	Glu	Lys	Ser	Leu	Gln	Phe	Glu	Leu	Ile
	195						200					205			
Ala	Ala	His	Leu	Asn	Pro	Ser	Asp	Thr	Glu	Glu	Trp	Val	Arg	Leu	Ala
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Glu	Met	Ser	Leu	Glu	Gln	Asp	Asn	Ile	Lys	Gln	Ala	Ile	Phe	Cys	Tyr
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Thr	Lys	Ala	Leu	Lys	Tyr	Glu	Pro	Thr	Asn	Val	Arg	Tyr	Leu	Trp	Glu
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Arg	Ser	Ser	Leu	Tyr	Glu	Gln	Met	Gly	Asp	His	Lys	Met	Ala	Met	Asp
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Gly	Tyr	Arg	Arg	Ile	Leu	Asn	Leu	Leu	Ser	Pro	Ser	Asp	Gly	Glu	Arg
	275					280						285			
Phe	Met	Gln	Leu	Ala	Arg	Asp	Met	Ala	Lys	Ser	Tyr	Tyr	Glu	Ala	Asn
	290					295					300				
Asp	Val	Thr	Ser	Ala	Ile	Asn	Ile	Ile	Asp	Glu	Ala	Phe	Ser	Lys	His
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Gln	Gly	Leu	Val	Ser	Met	Glu	Asp	Val	Asn	Ile	Ala	Ala	Glu	Leu	Tyr
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 Ser Phe Tyr Asp Asp Arg Gln Lys Arg Lys Glu Leu Glu Tyr Phe Gly  
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 675 680 685  
 Ile Arg Ile Met Val Met Glu Asn Val Asn Lys Pro Gln Leu Trp Asn  
 690 695 700  
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 Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys  
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 Val Leu Asn Gly His Asn Ala Phe Val Ser Gly Ser Phe Lys His Ala  
 740 745 750  
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 Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Tyr Val Leu Arg Arg His Ala Leu Ile Val Gln Gly Phe Ser Phe Leu
785              790              795              800
Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
      850              855              860
Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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Tyr Thr Tyr Cys Ser Ile
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&lt;210&gt; 5375

&lt;211&gt; 526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5375

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240
cccctctccc ttattaaaga agaatacatg tcgctgcat ttgccacgta ttgccatag
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360
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420
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526

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&lt;210&gt; 5376

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5376

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20     25     30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
35     40     45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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Ser Ser Leu Leu Lys Lys Asn Thr Cys Arg Cys His Leu Pro Arg Ile				
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Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr				80
	85		90	95
Gly Asp Gly Trp Gly Met Phe Met Ser Pro Phe Tyr Arg Ser Gly Asp				
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&lt;210&gt; 5377

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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600
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1200

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<210> 5378

<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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			20					25				30			
Arg	Ser	Gly	Leu	Arg	Leu	Gly	Ser	Arg	Gly	Leu	Cys	Thr	Arg	Leu	Ala
		35				40					45				
Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
	50				55					60					
Gly	Ser	Thr	Lys	Ala	Gln	Gly	Pro	Gln	Gln	Gln	Pro	Gly	Ser	Glu	Gly
65			70					75						80	
Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
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Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
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Asp	Glu	Asn	Gly	Ala	Lys	Ile	Pro	Asp	Glu	Phe	Asp	Asn	Asp	Pro	Ile
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Leu	Val	Gln	Gln	Leu	Arg	Arg	Thr	Tyr	Lys	Tyr	Phe	Lys	Asp	Tyr	Arg
	130				135					140					
Gln	Met	Ile	Ile	Glu	Pro	Thr	Ser	Pro	Cys	Leu	Leu	Pro	Asp	Pro	Leu
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Gln	Glu	Pro	Tyr	Tyr	Gln	Pro	Pro	Tyr	Thr	Leu	Val	Leu	Glu	Leu	Thr
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Gly	Val	Leu	Leu	His	Pro	Glu	Trp	Ser	Leu	Ala	Thr	Gly	Trp	Arg	Phe
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Lys	Lys	Arg	Pro	Gly	Ile	Glu	Thr	Leu	Phe	Gln	Gln	Leu	Ala	Pro	Leu
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Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
			245					250					255		
Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
		260					265					270			
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
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290		295		300
Lys Thr Ile Ala Leu Asn Gly Val Glu Asp Val Arg Thr Val Leu Glu				
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His Tyr Ala Leu Glu Asp Asp Pro Leu Ala Ala Phe Lys Gln Arg Gln				320
	325		330	335
Ser Arg Leu Glu Gln Glu Glu Gln Arg Leu Ala Glu Leu Ser Lys				
	340		345	350
Ser Asn Lys Gln Asn Leu Phe Leu Gly Ser Leu Thr Ser Arg Leu Trp				
	355		360	365
Pro Arg Ser Lys Gln Pro				
370				

&lt;210&gt; 5379

&lt;211&gt; 3213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5379

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1080

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<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
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Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
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Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
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Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85						90					95	
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
			100					105					110		
Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
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Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
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Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
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                                  245                      250                      255  
 Leu Asp Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala  
                                  260                      265                      270  
 Gly Ser Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala  
                                  275                      280                      285  
 Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys  
                                  290                      295                      300  
 Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys  
 305                                   310                                   315                                   320  
 Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly  
                                  325                                   330                                   335  
 Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly  
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 Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu  
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 Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp  
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 Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro  
 385                                   390                                   395                                   400  
 Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro  
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 Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro  
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 Pro Pro Ala Val Leu Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser  
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 Ala Thr Pro Thr Pro Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His  
 465                                   470                                   475                                   480  
 Leu Ile Pro Leu Leu Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala  
                                  485                                   490                                   495  
 Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu  
                                  500                                   505                                   510  
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 Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp  
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 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr  
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 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu  
 770 775 780  
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser  
 785 790 795 800  
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly  
 805 810 815  
 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro  
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 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu  
 835 840 845  
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu  
 850 855 860  
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala  
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&lt;210&gt; 5381

&lt;211&gt; 1576

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5381

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&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

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			20					25					30		
Ile	Ser	Gln	Ala	Trp	Pro	Gly	Met	Ala	Arg	Thr	Ile	Tyr	Gly	Asp	His
		35					40					45			
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840

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&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

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 Phe Pro Lys Val Glu Tyr Ile Ala Arg Ala Gly Ala Trp Ala Met Phe  
 20 25 30  
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala  
 35 40 45  
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

50	55	60
Arg Ala Val Pro Arg	Asn Val Gln Pro Tyr Val Val Tyr Glu Glu Val	
65	70	75
Thr Asn Val Trp Ile	Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln	80
	85	90
Ser Glu Gly Glu Asp	Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys	95
	100	105
Thr Gly Phe Cys His	Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln	110
	115	120
Gly Tyr Asp Trp Ser	Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser	125
	130	135
Leu Thr Asn Ala Ile	Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe	140
145	150	155
Gln Gly Thr Lys Asp	Thr Pro Leu Glu His His Leu Tyr Val Val Ser	160
	165	170
Tyr Glu Ala Ala Gly	Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser	175
	180	185
His Ser Cys Ser Met	Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr	190
	195	200
Ser Ser Val Ser Thr	Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly	205
	210	215
Pro Asp Asp Asp Pro	Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met	220
225	230	235
Met Glu Ala Ala Lys	Ile Phe His Phe His Thr Arg Ser Asp Val Arg	240
	245	250
Leu Tyr Gly Met Ile	Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys	255
	260	265
His Pro Thr Val Leu	Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val	270
	275	280
Asn Asn Ser Phe Lys	Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala	285
	290	295
Ser Leu Gly Tyr Ala	Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln	300
305	310	315
Arg Gly Leu Arg Phe	Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val	320
	325	330
Glu Ile Glu Asp Gln	Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr	335
	340	345
Gly Phe Ile Asp Leu	Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly	350
	355	360
Gly Phe Leu Ser Leu	Met Gly Leu Ile His Lys Pro Gln Val Phe Lys	365
	370	375
Val Ala Ile Ala Gly	Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr	380
385	390	395
Gly Tyr Thr Glu Arg	Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly	400
	405	410
Tyr Glu Ala Gly Ser	Val Ala Leu His Val Glu Lys Leu Pro Asn Glu	415
	420	425
Pro Asn Arg Leu Leu	Ile Leu His Gly Phe Leu Asp Glu Asn Val His	430
	435	440
Phe Phe His Thr Asn	Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys	445
	450	455
Pro Tyr Gln Leu Gln	Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr	460
465	470	475
Pro Asn Glu Arg His	Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr	480

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 <211> 314  
 <212> DNA  
 <213> Homo sapiens

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 180  
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<210> 5386  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5386  
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 Thr Trp Ser Ile Cys Cys Ser Trp Asn Arg Lys Glu Arg Ser Lys Lys  
                     20                      25                      30  
 Ser Val Pro Ser Pro Pro Arg Ala Gln Pro Leu Gly Arg Gly Leu His  
                     35                      40                      45  
 Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr  
                     50                      55                      60  
 Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu  
                     65                      70                      75                      80  
 Asn Cys Phe Arg Lys Cys Leu Gln His Ser Arg Glu Trp Asn Lys Gln  
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 Gly Pro Asn Ala  
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<210> 5387  
 <211> 375  
 <212> DNA  
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<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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Gln	Met	Ala	Tyr	Thr	Ala	Thr	His	Gln	Ser	Met	Gly	Asn	Trp	Ser	Met
		20					25					30			
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
	35					40					45				
Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu	Ser	Trp	Arg	Asn	Phe
	50				55					60					
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
65				70				75						80	
Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
		85					90					95			
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
		100				105						110			
Ala	Tyr	Ala	Thr	Glu	Met	Ala	Trp	Thr	Arg	Ala	Arg	Ala			
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<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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&lt;210&gt; 5390

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5390

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Thr Asn Ala Gln Thr Lys Glu Glu Tyr Thr Asp Asp Asn Ala Leu Ile					
	50		55		60
Pro Lys Asn Ser Ser Val Ile Val Arg Arg Ile Pro Ile Gly Gly Val					
65		70		75	80
Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met					
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Thr Leu Leu Leu Pro Leu					
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&lt;210&gt; 5391

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5391

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&lt;210&gt; 5392

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5392

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 Thr Ile Lys Gly His Cys Asn Leu Ser Leu Asn Leu Leu Gly Ser Ser  
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&lt;210&gt; 5393

&lt;211&gt; 4837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5393

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&lt;210&gt; 5394

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5394

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Glu	Val	Arg	Val	Pro	Val	Pro	Lys	His	Val	Val	Lys	Gly	Lys	Gln	Val
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&lt;210&gt; 5396

&lt;211&gt; 760

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5396

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Thr	Val	Ala	Ala	Ser	Phe	Gln	Ser	Thr	Ser	Val	Lys	Ser	Pro	Lys	Thr
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Lys	Ala	Ser	Lys	Lys	Asn	Gly	Asn	Val	Gly	Lys	Thr	Thr	Trp	Gln	Asn
			645						650					655	
Lys	Glu	Ser	Lys	Gly	Glu	Thr	Gly	Lys	Arg	Ser	Lys	Glu	Gly	His	Ser
		660					665					670			
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	675					680					685				
Glu	Asp	Asn	Ser	Phe	Leu	Lys	Gln	Gln	Ser	Pro	Gln	Glu	Pro	Lys	
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Ser	Leu	Asn	Trp	Ser	Ser	Phe	Val	Asp	Asn	Thr	Phe	Ala	Glu	Glu	Phe
705				710					715						720
Thr	Thr	Gln	Asn	Gln	Lys	Ser	Gln	Asp	Val	Glu	Leu	Trp	Glu	Gly	Glu
			725					730						735	
Val	Val	Lys	Glu	Leu	Ser	Val	Glu	Gln	Ile	Lys	Arg	Asn	Arg	Tyr	
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&lt;210&gt; 5397

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5397

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<210> 5400

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5400

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Pro	Gln	Gln	Ser	Ser	Pro	Tyr	Pro	Gly	Gly	Ser	Tyr	Gly	Pro	Pro	Gly
			50			55					60				
Pro	Gln	Arg	Tyr	Pro	Ile	Gly	Ile	Gln	Gly	Arg	Thr	Pro	Gly	Ala	Met
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Ala	Gly	Met	Gln	Tyr	Pro	Gln	Gln	Gln	Met	Pro	Pro	Gln	Tyr	Gly	Gln
			85					90					95		
Gln	Gly	Val	Ser	Gly	Tyr	Cys	Gln	Gln	Gly	Gln	Gln	Pro	Tyr	Tyr	Ser
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Ser	Gln	Ser	Gln	Gln	Arg	Tyr	Gln	Pro	Gln	Gln	Asp	Met	Ser	Gln	Glu
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Gly	Tyr	Gly	Thr	Arg	Ser	Gln	Pro	Pro	Leu	Ala	Pro	Gly	Lys	Pro	Asn
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His	Glu	Asp	Leu	Asn	Leu	Ile	Gln	Gln	Glu	Arg	Pro	Ser	Ser	Leu	Pro
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

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Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
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Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
	50					55				60					
Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
65				70						75				80	
Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
			85					90					95		
Ser	Val	Tyr	Ile	Trp	Pro	Ser	Ser	Asp	Ile	Asn	Thr	Ile	Pro	Gly	Glu



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 Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser  
 165 170 175  
 Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile  
 180 185 190  
 Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val  
 195 200 205  
 Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys  
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 Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu  
 225 230 235 240  
 Leu Pro Gly Lys Lys Asn Leu Val Thr Ile Ser Tyr Pro Ser Gly Ile  
 245 250 255  
 Pro Asp Gly Gln Leu Gln Ala Tyr Arg Lys Glu Leu His Asp Leu Phe  
 260 265 270  
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 Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr  
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 Tyr Leu Asn Pro Pro Asn Met Glu Thr Gly Met Ile Tyr Val Val Gln  
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 Ser Arg Gln Trp Ile Gly Ser Ile Glu Val Gln Leu Val Leu Asn Gln  
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 Ile Ala Ser Gln Gly Arg Glu Leu Ala Asn His Phe Gln Ser Glu Gly  
 420 425 430  
 Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly  
 435 440 445  
 Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp  
 450 455 460  
 Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly  
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&lt;210&gt; 5403

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5403

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&lt;210&gt; 5404

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5404

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Ser	Pro	Ala	Leu	Thr	Met	Ala	Pro	Ser	Ser	Leu	Gly	Ala	Leu	Gly	Pro
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Trp	Val	Gly	Ala	Leu	Glu	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Leu	Ser	Gln
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Ala	Ser	Leu	Arg	Ala	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Ser	Pro	Trp	Ala
			85					90					95		
Arg	Val	Pro	Cys	Ser	Arg	Ala	Arg	Arg	Pro	Lys	Ser	Ala	Glu	Leu	Leu
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Arg	Ile	Pro	Gly	Thr	Ser	Thr	Arg	Pro	Lys	Lys	Glu	Arg	Gly	Cys	Pro
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Ser	Pro	Gly	Leu	Pro	Ala	Ala	Gly	Pro	Gly	Pro	Ser	Pro	Ala	Gly	Arg
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&lt;210&gt; 5405

&lt;211&gt; 1609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5405

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
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 50 55 60  
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg  
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 100 105 110  
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 115 120 125  
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 165 170 175  
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 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr  
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 <213> Homo sapiens

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<210> 5408

<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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&lt;210&gt; 5409

&lt;211&gt; 2019

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5409

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&lt;210&gt; 5410

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5410

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			20					25					30		
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&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5412

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Met Ile Gly Asn Ile Phe Thr Gln Gln Pro Ser Tyr Tyr Ser Asp Leu
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Asp Glu Thr Leu Pro Thr Ile Leu Gln Val Phe Ser Asn Ile Leu Gln
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His Cys Gly Leu Gln Gly Asp Gly Ala Asn Thr Thr Pro Gln Lys Leu
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Glu Glu Arg Gly Arg Leu Thr Pro Ser Asp Met Pro Leu Leu Glu Leu
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Lys Asp Ile Val Leu Tyr Leu Cys Asp Thr Cys Thr Thr Leu Trp Ala
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      165          170          175
Glu Ser Ala Ile Lys Lys Arg Arg Leu Glu Asp Ser Lys Leu Leu Gly
      180          185          190
Asp Leu Trp Gln Arg Leu Ser His Ser Arg Lys Lys Leu Met Glu Ile
      195          200          205
Phe His Ile Ile Leu Asn Gln Ile Cys Leu Leu Pro Ile Leu Glu Ser
 210          215          220
Ser Cys Asp Asn Ile Gln Gly Phe Ile Glu Glu Phe Leu Gln Ile Phe
 225          230          235          240
Ser Ser Leu Leu Gln Glu Lys Arg Phe Leu Arg Asp Tyr Asp Ala Leu
      245          250          255
Phe Pro Val Ala Glu Asp Ile Ser Leu Leu Gln Gln Ala Ser Ser Val
      260          265          270
Leu Asp Glu Thr Arg Thr Ala Tyr Ile Leu Gln Ala Val Glu Ser Ala
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Trp Glu Gly Val Asp Arg Arg Lys Ala Thr Asp Ala Lys Asp Pro Ser
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Val Ile Glu Glu Pro Asn Gly Glu Pro Asn Gly Val Thr Val Thr Ala
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Glu Ala Val Ser Gln Ala Ser Ser His Pro Glu Asn Ser Glu Glu Glu
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&lt;210&gt; 5413

&lt;211&gt; 1677

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5413

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&lt;210&gt; 5414

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5414

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 115 120 125  
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 Thr Val Pro Ile Ser Asp Ser Asp Leu Glu Ile Ser Phe Asn Ser Gly  
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 Glu Arg Leu Met Val Leu Lys Glu Leu Glu Met Ser Ser His Glu Asn  
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 Phe Gly Asp Ile Glu Glu Thr Pro Gln Lys Ser Glu Thr Ser Lys Ser  
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&lt;210&gt; 5415

&lt;211&gt; 1493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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 <212> PRT  
 <213> Homo sapiens

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<210> 5417  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5418

&lt;211&gt; 528

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5418

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 35 40 45  
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 Arg His Ala Glu Asn Pro His His Pro Leu Lys Thr Ser Ser Arg Ala

4602

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 <212> DNA  
 <213> Homo sapiens

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 <211> 174  
 <212> PRT  
 <213> Homo sapiens

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Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro
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Glu Glu His Ser Arg Trp Arg Asp Arg Ser Arg Thr Arg Ser Arg Ser
      100      105      110
Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu
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Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr Thr Asn Ile Asp
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Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys Glu Thr Ser Arg
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&lt;210&gt; 5421

&lt;211&gt; 1239

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5421

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<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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<212> DNA  
<213> Homo sapiens

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 1980  
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 2160  
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 2280  
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 2340  
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 2427

&lt;210&gt; 5424

&lt;211&gt; 570

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5424

Met	Ala	Ala	Ala	Gly	Leu	His	Ser	Asn	Val	Arg	Leu	Leu	Ser	Ser	Leu
1				5					10					15	
Leu	Leu	Thr	Met	Ser	Asn	Asn	Asn	Pro	Glu	Leu	Phe	Ser	Pro	Pro	Gln
				20				25					30		
Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35					40					45			
Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
		50				55					60				
Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser

65		70		75		80
Ala Ser Thr Pro Gln Ser Gln Cys Leu Pro Ser Glu Ile Glu Val Lys						
	85		90		95	
Tyr Lys Met Ala Glu Cys Tyr Thr Met Leu Lys Gln Asp Lys Asp Ala						
	100		105		110	
Ile Ala Ile Leu Asp Gly Ile Pro Ser Arg Gln Arg Thr Pro Lys Ile						
	115		120		125	
Asn Met Met Leu Ala Asn Leu Tyr Lys Lys Ala Gly Gln Glu Arg Pro						
	130		135		140	
Ser Val Thr Ser Tyr Lys Glu Val Leu Arg Gln Cys Pro Leu Ala Leu						
	145		150		155	160
Asp Ala Ile Leu Gly Leu Leu Ser Leu Ser Val Lys Gly Ala Glu Val						
	165		170		175	
Ala Ser Met Thr Met Asn Val Ile Gln Thr Val Pro Asn Leu Asp Trp						
	180		185		190	
Leu Ser Val Trp Ile Lys Ala Tyr Ala Phe Val His Thr Gly Asp Asn						
	195		200		205	
Ser Arg Ala Ile Ser Thr Ile Cys Ser Leu Glu Lys Lys Ser Leu Leu						
	210		215		220	
Arg Asp Asn Val Asp Leu Leu Gly Ser Leu Ala Asp Leu Tyr Phe Arg						
	225		230		235	240
Ala Gly Asp Asn Lys Asn Ser Val Leu Lys Phe Glu Gln Ala Gln Met						
	245		250		255	
Leu Asp Pro Tyr Leu Ile Lys Gly Met Asp Val Tyr Gly Tyr Leu Leu						
	260		265		270	
Ala Arg Glu Gly Arg Leu Glu Asp Val Glu Asn Leu Gly Cys Arg Leu						
	275		280		285	
Phe Asn Ile Ser Asp Gln His Ala Glu Pro Trp Val Val Ser Gly Cys						
	290		295		300	
His Ser Phe Tyr Ser Lys Arg Tyr Ser Arg Ala Leu Tyr Leu Gly Ala						
	305		310		315	320
Lys Ala Ile Gln Leu Asn Ser Asn Ser Val Gln Ala Leu Leu Lys						
	325		330		335	
Gly Ala Ala Leu Arg Asn Met Gly Arg Val Gln Glu Ala Ile Ile His						
	340		345		350	
Phe Arg Glu Ala Ile Arg Leu Ala Pro Cys Arg Leu Asp Cys Tyr Glu						
	355		360		365	
Gly Leu Ile Glu Cys Tyr Leu Ala Ser Asn Ser Ile Arg Glu Ala Met						
	370		375		380	
Val Met Ala Asn Asn Val Tyr Lys Thr Leu Gly Ala Asn Ala Gln Thr						
	385		390		395	400
Leu Thr Leu Leu Ala Thr Val Cys Leu Glu Asp Pro Val Thr Gln Glu						
	405		410		415	
Lys Ala Lys Thr Leu Leu Asp Lys Ala Leu Thr Gln Arg Pro Asp Tyr						
	420		425		430	
Ile Lys Ala Val Val Lys Lys Ala Glu Leu Leu Ser Arg Glu Gln Lys						
	435		440		445	
Tyr Glu Asp Gly Ile Ala Leu Leu Arg Asn Ala Leu Ala Asn Gln Ser						
	450		455		460	
Asp Cys Val Leu His Arg Ile Leu Gly Asp Phe Leu Val Ala Val Asn						
	465		470		475	480
Glu Tyr Gln Glu Ala Met Asp Gln Tyr Ser Ile Ala Leu Ser Leu Asp						
	485		490		495	
Pro Asn Asp Gln Lys Ser Leu Glu Gly Met Gln Lys Met Glu Lys Glu						



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          500          505          510
Glu Ser Pro Thr Asp Ala Thr Gln Glu Glu Asp Val Asp Asp Met Glu
          515          520          525
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala
          530          535          540
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala
545          550          555          560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu
          565          570

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<210> 5425  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

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120
ttctcttccc acccgccctc tcccaggtgg gagacattgt ctcggtgatc gacatgccac
180
ccacagagga tcggagctgg tggcggggca agcagaggctt ccaggtcggg ttcttcccca
240
gtgagtgtgt ggaactcttc acagagcggc cagggtccggg cctgaaggcg gatgccgatg
300
gcccccatg tggcatcccg gctcccagg gtatctcgtc tctgacctca gctgtgccac
360
ggcctcgtagg gaagctggcc ggctgctcc gcacctcat gcgctcccg ccttctcggc
420
agcggctgcg gcagcgggga atcctgcgac agaggggtgtt tggctgcat cttggcgagc
480
acctcagcaa ctcaggccag gatgtgcccc gtgctgctg gctgctccga gttcattgag
540
gccnacgggg tggtggatgg gatctaccgg ctctcaggcg tgtcttccaa catccagagg
600
cttcggcacg agtttgacag tgagaggata ccggagctg
639

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<210> 5426  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

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<400> 5426
Pro Gln Leu Cys His Gly Leu Val Gly Ser Trp Pro Ala Cys Ser Ala
1          5          10          15
Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
20          25          30
Ser Cys Asp Arg Gly Cys Leu Ala Ala Ile Leu Ala Ser Thr Ser Ala
35          40          45
Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
50          55          60
Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

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<400> 5429

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 120  
 gcgctgagct gggggaggcc ccgggctccc gccccagcct cgaagccccg ccccaggctg  
 180  
 gatttgaatt gcttgtggct ccgcccacag cccattttcc tctggaagct gagacccccg  
 240  
 cccgtgccag ctgccacgcc cctgacaggt cctctgccac tctaagtcca ggccccgccc  
 300  
 accgcacaat gccagctctg cccactctaa ggtcccgccc acttccactc cttgggggcg  
 360  
 gcaccctccc cttggctctg tgggcccgtt ctccagcaga aaaccacgcc caccaagcag  
 420  
 aggccacgcc cacaaccgaa gtcaacgcca accctgtact caaacctcgg cccatagttc  
 480  
 ctcagatccc ctcaccctg gccagggatc cctctaacc accgtgtccc gactgctgac  
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 cgggccctac ctccatcttt tccgggttct tctcccagc taggccccgc ccccatcccc  
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 gcccatacgc gt  
 612

<210> 5430  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 5430  
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 Val Lys Gln Glu Arg Gly Glu Gly Pro Arg Ala Gly Glu Lys Gly Ser  
 20 25 30  
 His Glu Glu Glu Val Arg Val Pro Ala Leu Ser Trp Gly Arg Pro Arg  
 35 40 45  
 Ala Pro Ala Pro Ala Ser Lys Pro Arg Pro Arg Leu Asp Leu Asn Cys  
 50 55 60  
 Leu Trp Leu Arg Pro Gln Pro Ile Phe Leu Trp Lys Leu Arg Pro Arg  
 65 70 75 80  
 Pro Val Pro Ala Ala Thr Pro Leu Thr Gly Pro Leu Pro Leu  
 85 90

<210> 5431  
 <211> 3005  
 <212> DNA  
 <213> Homo sapiens

<400> 5431  
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 120  
 gccattgtct gggcacccaa cctgctacgg tccatggagc tggagtcagt gggaatgggt  
 180

ggcgcgggcg cgttcgggga agttcgggtg cagtcgggtg tggaggagtt tctgctcacc  
240  
catgtggagc tcctgttcag cgacaccttc acctccgccg gcctcgaccc tgcaggccgc  
300  
tgcctgctcc ccaggcccaa gtcccttgcg ggcagctgcc cctccacccg cctgctgacg  
360  
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420  
cccaaggccc cggcctcacc tgcggaaagg aggaaagggg agagagggga gaagcagcg  
480  
aagccagggg gcagcagctg gaagacgttc ttgcaactgg gccggggccc cagtgtccct  
540  
cgaaagaagc ccctgccctg gctggggggc acccgtgcc caccgcagcc ttcaggcagc  
600  
agaccgcaca ccgtcacact gagatctgcc aagagcgagg agtctctgtc atcgcaggcc  
660  
agcggggctg gcctccagag gctgcacagg ctgcggcgac cccactccag cagcgacgct  
720  
ttcctgtgg gccagcacc tgcgtggctc tgcgagagcc tgcctcgtc ctctcctcc  
780  
gagtcctcct cctctgagtc ctctcttcc tcctctgagt cctcagcagc tgggctgggg  
840  
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900  
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960  
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1020  
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1140  
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1560  
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1620  
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1680  
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1740  
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1800

tcacagggttc ctacccccgg cttcttctcc ccagcccccga gggagtgccct gccacccttc  
 1860  
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 1920  
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 1980  
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 3005

&lt;210&gt; 5432

&lt;211&gt; 863

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5432

Xaa	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg	Thr	Leu
1				5				10						15	
Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser	Ala	Asn
		20						25					30		
Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu

35 40 45  
 Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala Ala Ala  
 50 55 60  
 Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu Leu Thr  
 65 70 75 80  
 His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly Leu Asp  
 85 90 95  
 Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala Gly Ser  
 100 105 110  
 Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr  
 115 120 125  
 Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys Ala Pro  
 130 135 140  
 Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys Gln Arg  
 145 150 155 160  
 Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly Arg Gly  
 165 170 175  
 Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly Thr Arg  
 180 185 190  
 Ala Pro Pro Gln Pro Ser Gly Ser Arg Pro Asp Thr Val Thr Leu Arg  
 195 200 205  
 Ser Ala Lys Ser Glu Glu Ser Leu Ser Ser Gln Ala Ser Gly Ala Gly  
 210 215 220  
 Leu Gln Arg Leu His Arg Leu Arg Arg Pro His Ser Ser Ser Asp Ala  
 225 230 235 240  
 Phe Pro Val Gly Pro Ala Pro Ala Gly Ser Cys Glu Ser Leu Ser Ser  
 245 250 255  
 Ser Ser Ser Ser Glu Ser Ser Ser Ser Glu Ser Ser Ser Ser Ser Ser  
 260 265 270  
 Glu Ser Ser Ala Ala Gly Leu Gly Ala Leu Ser Gly Ser Pro Ser His  
 275 280 285  
 Arg Thr Ser Ala Trp Leu Asp Asp Gly Asp Glu Leu Asp Phe Ser Pro  
 290 295 300  
 Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp Phe Asp Pro Leu Thr  
 305 310 315 320  
 Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro Ala Pro Pro Ala Ser  
 325 330 335  
 Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro Pro Arg Val Thr Pro  
 340 345 350  
 Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro Ala Ser Pro Ala Ala  
 355 360 365  
 Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val Pro Pro Ala Val Leu  
 370 375 380  
 Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser Ala Thr Pro Thr Pro  
 385 390 395 400  
 Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His Leu Ile Pro Leu Leu  
 405 410 415  
 Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala Cys Gln Gln Glu Met  
 420 425 430  
 Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu Gly Pro Asp Met Glu  
 435 440 445  
 Ser Pro Leu Pro Pro Pro Pro Leu Ser Leu Leu Arg Pro Gly Gly Ala  
 450 455 460  
 Pro Pro Pro Pro Pro Lys Asn Pro Ala Arg Leu Met Ala Leu Ala Leu

465                      470                      475                      480  
 Ala Glu Arg Ala Gln Gln Val Ala Glu Gln Gln Ser Gln Gln Glu Cys  
                                  485                      490                      495  
 Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser  
                                  500                      505                      510  
 Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro  
                                  515                      520                      525  
 Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro  
                                  530                      535                      540  
 Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg  
 545                      550                      555                      560  
 Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser  
                                  565                      570                      575  
 Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala  
                                  580                      585                      590  
 Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe  
                                  595                      600                      605  
 Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro  
                                  610                      615                      620  
 Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser  
 625                      630                      635                      640  
 Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp  
                                  645                      650                      655  
 Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro  
                                  660                      665                      670  
 Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro  
                                  675                      680                      685  
 Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu  
                                  690                      695                      700  
 His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys  
 705                      710                      715                      720  
 Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg  
                                  725                      730                      735  
 Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro  
                                  740                      745                      750  
 Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Pro Pro Ala His  
                                  755                      760                      765  
 Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln  
                                  770                      775                      780  
 Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly  
 785                      790                      795                      800  
 Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro  
                                  805                      810                      815  
 Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn  
                                  820                      825                      830  
 Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Pro Tyr Pro Thr  
                                  835                      840                      845  
 Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys  
                                  850                      855                      860

&lt;210&gt; 5433

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5433

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 120  
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 180  
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 240  
 aacgcactctg ctcttcaccc ttcgctccgt ctgttttccc ttagcaaccc atctctttcc  
 300  
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 385

&lt;210&gt; 5434

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5434

Asp	Leu	Thr	Asn	Leu	His	Tyr	Ser	Thr	Pro	Leu	Pro	Ala	Ser	Leu	Asp
1			5					10					15		
Thr	Thr	Asp	His	His	Phe	Gly	Ser	Met	Ser	Val	Gly	Asn	Ser	Val	Asn
			20				25					30			
Asn	Ile	Pro	Ala	Ala	Met	Thr	His	Leu	Gly	Ile	Arg	Ser	Ser	Ser	Gly
			35			40					45				
Leu	Gln	Ser	Ser	Arg	Ser	Asn	Pro	Ser	Ile	Gln	Ala	Thr	Leu	Asn	Lys
	50				55					60					
Thr	Val	Leu	Ser	Ser	Ser	Leu	Asn	Asn	His	Pro	Gln	Thr	Ser	Val	Pro
65				70				75					80		
Asn	Ala	Ser	Ala	Leu	His	Pro	Ser	Leu	Arg	Leu	Phe	Ser	Leu	Ser	Asn
			85					90					95		
Pro	Ser	Leu	Ser	Thr	Thr	Asn	Leu	Ser	Gly	Pro	Ser	Arg	Arg	Arg	Gln
		100					105					110			
Pro	Pro	Val	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Gly	Pro	Glu	Ala	His	Gln
		115				120						125			

&lt;210&gt; 5435

&lt;211&gt; 617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5435

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 120  
 ccttgataa gtatactttg tataacttct ggcaaaccat aattatgaac tcacattact  
 180  
 atagtactat aatactgcag aaagggatct tgcgtttcag aaatgtcact catccagttt  
 240



tcttccccctt tctctaacc cacttccctc ccaggctcat ggtttctggt gcaatcctct  
 300  
 ttctccttac acaaggcaag aagttttctt accaatagat cagacctgtg aaggactgcc  
 360  
 cgacatgac tgatatgggt gttcttcatt ttgggctgta gtattttaaa gtagagggtt  
 420  
 gctctgatgg tcccatcact gcttgccatt gtctttccct ttgctctagc tatcagggga  
 480  
 tgttgcttta agtttggtcc ccaggcttta ctgccaagag ggaaattcat acccacttta  
 540  
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 600  
 agttaccctt cagcgt  
 617

&lt;210&gt; 5436

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5436

Met Asn Phe Pro Leu Gly Ser Lys Ala Trp Gly Thr Asn Leu Lys Gln  
 1 5 10 15  
 His Pro Leu Ile Ala Arg Ala Lys Gly Lys Thr Met Ala Ser Ser Asp  
 20 25 30  
 Gly Thr Ile Arg Ala Asn Leu Tyr Phe Lys Ile Leu Gln Pro Lys Met  
 35 40 45  
 Lys Asn Asn His Ile Arg Ser Cys Arg Ala Val Leu His Arg Ser Asp  
 50 55 60  
 Leu Leu Val Arg Lys Leu Leu Ala Leu Cys Lys Glu Lys Glu Asp Cys  
 65 70 75 80  
 Asn Arg Asn His Glu Pro Gly Arg Glu Met Gly Leu Glu Lys Gly Glu  
 85 90 95  
 Glu Asn Trp Met Ser Asp Ile Ser Glu Thr Gln Asp Pro Phe Leu Gln  
 100 105 110  
 Tyr Tyr Ser Thr Ile Val Met  
 115

&lt;210&gt; 5437

&lt;211&gt; 1422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5437

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 gccctgggag ctaacgtaga gctttggata atgcttttgc aagttgtacg agaaggggaag  
 120  
 ttctcgggggt ttctgacctc ctgcagcctc ctcttgctc gggctgccca gatcttggcg  
 180  
 gctgaggctg gcttaccttc gagccgttcc ttcattgggat ttgctgctcc cttaccaaac  
 240  
 aagcgaaagg cttactcgga gcgtagaatc atgggggtact caatgcagga gatgtatgag  
 300

gtggtgtcca acgtccagga gtatcgtgag tttgtgccct ggtgtaagaa gtctctgggtg  
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 gaacgttaca cctctgcagt ttccatgggc aaacctcaca tggtaaggc tgtttgtact  
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 1380  
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 1422

&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

Phe Arg Gly Gly Gly Val Leu Tyr Trp Asp Ala Gly Ala Ala Gly Thr  
 1 5 10 15  
 Gly Ser Asn His Ala Leu Gly Ala Asn Val Glu Leu Trp Ile Met Leu  
 20 25 30  
 Leu Gln Val Val Arg Glu Gly Lys Phe Ser Gly Phe Leu Thr Ser Cys  
 35 40 45  
 Ser Leu Leu Leu Pro Arg Ala Ala Gln Ile Leu Ala Ala Glu Ala Gly  
 50 55 60  
 Leu Pro Ser Ser Arg Ser Phe Met Gly Phe Ala Ala Pro Phe Thr Asn

65					70					75				80	
Lys	Arg	Lys	Ala	Tyr	Ser	Glu	Arg	Arg	Ile	Met	Gly	Tyr	Ser	Met	Gln
			85						90					95	
Glu	Met	Tyr	Glu	Val	Val	Ser	Asn	Val	Gln	Glu	Tyr	Arg	Glu	Phe	Val
			100					105					110		
Pro	Trp	Cys	Lys	Lys	Ser	Leu	Val	Val	Ser	Ser	Arg	Lys	Gly	His	Leu
		115				120						125			
Lys	Ala	Gln	Leu	Glu	Val	Gly	Phe	Pro	Pro	Val	Met	Glu	Arg	Tyr	Thr
	130					135					140				
Ser	Ala	Val	Ser	Met	Val	Lys	Pro	His	Met	Val	Lys	Ala	Val	Cys	Thr
145					150					155				160	
Asp	Gly	Lys	Leu	Phe	Asn	His	Leu	Glu	Thr	Ile	Trp	Arg	Phe	Ser	Pro
			165					170						175	
Gly	Ile	Pro	Ala	Tyr	Pro	Arg	Thr	Cys	Thr	Val	Asp	Phe	Ser	Ile	Ser
		180						185					190		
Phe	Glu	Phe	Arg	Ser	Leu	Leu	His	Ser	Gln	Leu	Ala	Thr	Met	Phe	Phe
		195					200					205			
Asp	Glu	Val	Val	Lys	Gln	Asn	Val	Ala	Ala	Phe	Glu	Arg	Arg	Ala	Ala
	210					215					220				
Thr	Lys	Phe	Gly	Pro	Glu	Thr	Ala	Ile	Pro	Arg	Glu	Leu	Met	Phe	His
225					230					235				240	
Glu	Val	His	Gln	Thr											
				245											

&lt;210&gt; 5439

&lt;211&gt; 4234

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5439

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atcaaagttg tgggaaaatg gaaggaagtg aagattgacc caaatatgtt tgcagatgga  
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300

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360

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420

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960  
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 4234

<210> 5440

<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Gly	Ile	Lys	Thr	Ala	Ile	Leu	Val	Gly	Gly	Met	Ser	Thr	Gln	Lys	Gln
			20					25					30		
Gln	Arg	Met	Leu	Asn	Arg	Arg	Pro	Glu	Ile	Val	Val	Ala	Thr	Pro	Gly
		35					40					45			
Arg	Leu	Trp	Glu	Leu	Ile	Lys	Glu	Lys	His	Tyr	His	Leu	Arg	Asn	Leu
	50					55					60				
Arg	Gln	Leu	Arg	Cys	Leu	Val	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu
65					70					75				80	
Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Leu	Glu	Met	Leu	Asn	Asp
			85					90						95	
Ser	Gln	Tyr	Asn	Pro	Lys	Arg	Gln	Thr	Leu	Val	Phe	Ser	Ala	Thr	Leu
			100					105						110	
Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
		115				120							125		
Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile
	130					135					140				
Gly	Met	Arg	Gly	Lys	Pro	Lys	Val	Ile	Asp	Leu	Thr	Arg	Asn	Glu	Ala
145				150					155					160	
Thr	Val	Glu	Thr	Leu	Thr	Glu	Thr	Lys	Ile	His	Cys	Glu	Thr	Asp	Glu
			165					170						175	
Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser
			180					185					190		
Leu	Val	Phe	Ala	Asn	Ser	Ile	Ser	Cys	Ile	Lys	Arg	Leu	Ser	Gly	Leu
		195					200					205			
Leu	Lys	Val	Leu	Asp	Ile	Met	Pro	Leu	Thr	Leu	His	Ala	Cys	Met	His
	210					215					220				
Gln	Lys	Gln	Arg	Leu	Arg	Asn	Leu	Glu	Gln	Phe	Ala	Arg	Leu	Glu	Asp
225				230						235				240	
Cys	Val	Leu	Leu	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro
			245					250						255	
Lys	Val	Gln	His	Val	Ile	His	Tyr	Gln	Val	Pro	Arg	Thr	Ser	Glu	Ile
			260					265					270		
Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu
		275					280					285			
Ser	Leu	Met	Leu	Ile	Gly	Pro	Glu	Asp	Val	Ile	Asn	Phe	Lys	Lys	Ile

290 295 300  
 Tyr Lys Thr Leu Lys Lys Asp Glu Asp Ile Pro Leu Phe Pro Val Gln  
 305 310 315 320  
 Thr Lys Tyr Met Asp Val Val Lys Glu Arg Ile Arg Leu Ala Arg Gln  
 325 330 335  
 Ile Glu Lys Ser Glu Tyr Arg Asn Phe Gln Ala Cys Leu His Asn Ser  
 340 345 350  
 Trp Ile Glu Gln Ala Ala Ala Ala Leu Glu Ile Glu Leu Glu Glu Asp  
 355 360 365  
 Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln  
 370 375 380  
 Lys Gln Met Lys Val Leu Lys Lys Glu Leu Arg His Leu Leu Ser Gln  
 385 390 395 400  
 Pro Leu Phe Thr Glu Ser Gln Lys Thr Lys Tyr Pro Thr Gln Ser Gly  
 405 410 415  
 Lys Pro Pro Leu Leu Val Ser Ala Pro Ser Lys Ser Glu Ser Ala Leu  
 420 425 430  
 Ser Cys Leu Ser Lys Gln Lys Lys Lys Lys Thr Lys Lys Pro Lys Glu  
 435 440 445  
 Pro Gln Pro Glu Gln Pro Gln Pro Ser Thr Ser Ala Asn  
 450 455 460

&lt;210&gt; 5441

&lt;211&gt; 1635

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5441

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 120  
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 180  
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 300  
 gaaaaagacc tcgatgaagt tctgcagacc cactcagtgt ttgtaaatgt ttctaaaggt  
 360  
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 420  
 tgtaagcaga ttttgactaa aggagaagtt caagtatcag ataaagaaag acacacacaa  
 480  
 ctggagcaga tgtttaggga cattgcaact attgtggcag acaaattgtgt gaatcctgaa  
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 aaaatgaaga tagaacgtgc tcacatgagg cttecggttca tccttcaggt gaatgaaggc  
 720  
 aagaagctga aagaaaagct caagccactg atcaagggtca tagaaagtga agattatggc  
 780

caacagttag aaatcgtatg tctgattgac cgggctgct tccgagaaat tgatgagcta  
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 1635

&lt;210&gt; 5442

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5442

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Val	Val	Arg	Met	Lys	Arg	Ala	Gly	Lys	Arg	Phe	Glu	Ile	Ala	Cys	Tyr
		20					25				30				
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
		35				40					45				
Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
	50				55			60							
Val	Ala	Lys	Lys	Glu	Asp	Leu	Ile	Ser	Ala	Phe	Gly	Thr	Asp	Asp	Gln
65				70				75					80		
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
			85				90						95		
Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
		100				105						110			
Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
		115				120						125			
Thr	Val	Ile	Leu	Ile	Glu	Arg	Ala	Met	Lys	Asp	Ile	His	Tyr	Ser	Val



130		135		140
Lys Thr Asn Lys Ser Thr Lys Gln Gln Ala Leu Glu Val Ile Lys Gln				
145		150		155
Leu Lys Glu Lys Met Lys Ile Glu Arg Ala His Met Arg Leu Arg Phe				
	165		170	175
Ile Leu Pro Val Asn Glu Gly Lys Lys Leu Lys Glu Lys Leu Lys Pro				
	180		185	190
Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln Leu Glu Ile				
	195		200	205
Val Cys Leu Ile Asp Pro Gly Cys Phe Arg Glu Ile Asp Glu Leu Ile				
	210		215	220
Lys Lys Glu Thr Lys Gly Lys Gly Ser Leu Glu Val Leu Asn Leu Lys				
225		230		235
Asp Val Glu Glu Gly Asp Glu Lys Phe Glu				240
	245		250	

&lt;210&gt; 5443

&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

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Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg
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Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys
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4627

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&lt;210&gt; 5446

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5446

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 Gly Thr Gln Trp Phe His Pro Gln Val Cys Ser Asn Arg His His Ser  
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 Pro Arg Pro His Ala Asp Ser Asp Thr Arg Ala His Ser Pro Arg Ser

65		70		75		80									
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			85						90					95	
Thr	Val	Glu	Thr	Arg	Gln	Val	Gly	Leu	Gly	Cys					
			100					105							

&lt;210&gt; 5447

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5447

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 <213> Homo sapiens

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 Ala Leu His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Lys Thr Ile  
 35 40 45  
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu  
 50 55 60  
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn  
 65 70 75 80  
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr  
 85 90 95  
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu  
 100 105 110  
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 115 120 125  
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&lt;210&gt; 5450

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5450

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Glu	Met	Lys	Glu	Arg	Gly	Gly	Asn	Gln	Thr	Ser	Gly	Ile	Asp	Phe	Phe
			20					25					30		
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		35					40					45			
Pro	Ser	Ile	Leu	Asp	His	Leu	Ile	Asn	Asn	Asp	Arg	Lys	Leu	Pro	Pro
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5452

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5452

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			20					25					30		
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
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 1680  
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 1740  
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 1800  
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 1860  
 cccatgccac aacctgggct cctggctaca gcagggctcc agggactcca aataaatgtt  
 1920  
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 1974

&lt;210&gt; 5454

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5454

Xaa	Gly	Arg	Pro	Ala	Met	Glu	Pro	Gly	Ser	Val	Glu	Asn	Leu	Ser	Ile
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Val	Tyr	Arg	Ser	Arg	Asp	Phe	Leu	Val	Val	Asn	Lys	His	Trp	Asp	Val
			20					25					30		
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
		35				40					45				
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
	50				55					60					
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
65				70					75					80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
			85					90					95		
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
			100					105					110		
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
		115					120					125			
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
	130					135					140				
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
145				150					155					160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
			165					170						175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
		180						185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
	195					200						205			
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210	215	220
Thr Asp Thr Glu Cys Val Glu Val Cys Thr Pro Asp Pro Phe Leu Pro		
225	230	235
Ser Leu Asp Ala Cys Trp Ser Pro His Thr Leu Leu Gln Ser Leu Asp		240
	245	250
Gln Leu Val Gln Ala Leu Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp		255
	260	265
Arg Gly Pro Arg Pro Gly Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly		270
	275	280
Arg Pro Pro Pro Pro Pro Thr Lys Pro Pro Glu Thr Glu Ala Gln Arg		285
	290	295
Gly Pro Cys Leu Gln Trp Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser		300
305	310	315
		320

&lt;210&gt; 5455

&lt;211&gt; 975

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5455

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240
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420
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720
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840
accatgaaca tccccttcca gtccatccac ttcacacct atgagttcct gcaggagcag
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975

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<210> 5456  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

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 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr  
 35 40 45  
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr  
 50 55 60  
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala  
 65 70 75 80  
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe  
 85 90 95  
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser  
 100 105 110  
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His  
 115 120 125  
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly  
 130 135 140  
 Ala Leu Ala Ala Ala  
 145

<210> 5457  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

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 120  
 tccgtgtcca cccacatgac agcaggagcg atggccggga tcctggagca ctcggtcatg  
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 taccgggtgg actcggtgaa ggtaatgtgg actgtggagc tctgtgctgg tcactttcaa  
 240  
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 300  
 tccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgtcac  
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 420  
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 448

<210> 5458  
 <211> 81  
 <212> PRT

<213> Homo sapiens

<400> 5458

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Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly
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Asp Ser Arg Asp Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
      20             25             30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
      35             40             45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
      50             55             60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
65             70             75             80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcgagg gatggatggg
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gacagccgag atggcggcgg cggcaaggac gccaccgggt cggaggacta cgagaacctg
240
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300
cactcgggtc tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat
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420
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480
atgtattttg cctgctatga aaacatgaaa aggactttta atgacgtttt ccaccaccaa
540
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660
cccgttgct cacgaataaa gaactcagag ttgtgtgtgc aatgcacacc cagacacacg
720
cacgcacaca cgcgcgcgcg cacacacatg cttttttctg ttccctccg ctttctgaag
780
cctggggaga aatcagtgc agaggtgttt tggttttatt gttatgtggg ttttctttt
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900
gaaaccctga atagaaacaa aacttttgaa tgctggattc aaaaaaaaaa aaaagttatc
960

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 1080  
 aaggcctttc ccaccttaag cttccgggga tctgggaatt ttaccccat tctcttctgt  
 1140  
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 1260  
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 1320  
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 1380  
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 1468

<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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		20					25					30			
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
		35				40						45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50					55					60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
			85					90						95	
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
		100					105					110			
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
		115					120					125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
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Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
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<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120  
ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc  
180  
atatggagcg aaatatcttc ctgaatatgc agagaaaatt cctggtgaat ccacacagaa  
240  
gctttctgaa gtagcaaagg aatgcagcat atatctcatt ggaggtaact tcctaccac  
300  
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc  
360  
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420  
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480  
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720  
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780  
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900  
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1080  
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1200  
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1260  
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1320  
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1380  
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1680



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1725

<210> 5462  
<211> 159  
<212> PRT  
<213> Homo sapiens

<400> 5462  
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20 25 30  
Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr  
35 40 45  
Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu  
50 55 60  
Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val  
65 70 75 80  
Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys  
85 90 95  
Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly  
100 105 110  
Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp  
115 120 125  
Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe  
130 135 140  
Arg Gln Lys Arg Ser Asp Leu Tyr Ala Val Glu Met Lys Lys Pro  
145 150 155

<210> 5463  
<211> 792  
<212> DNA  
<213> Homo sapiens

<400> 5463  
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120  
gacaaaggcg agggacaaga gagagttaac atctagacag tggaaaaagc catggtgtgt  
180  
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240  
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300  
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480  
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<210> 5464  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 5464  
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 Gln Met Tyr Asn Ser Gln His Arg Ser Ala Ile Ser Cys Ile Arg Thr  
 35 40 45  
 Val Trp Arg Thr Glu Gly Leu Gly Ala Phe Tyr Arg Ser Tyr Thr Thr  
 50 55 60  
 Gln Leu Thr Met Asn Ile Pro Phe Gln Ser Ile His Phe Ile Thr Tyr  
 65 70 75 80  
 Glu Phe Leu Gln Glu Gln Val Asn Pro His Arg Thr Tyr Asn Pro Gln  
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 <211> 497  
 <212> DNA  
 <213> Homo sapiens

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 180  
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<210> 5466  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 5466  
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20 25 30  
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser  
35 40 45  
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile  
50 55 60  
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg  
65 70 75 80  
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro  
85 90 95  
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro  
100 105 110  
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro  
115 120 125  
Gly Gln Pro Arg Ser Ala  
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<210> 5467  
<211> 1329  
<212> DNA  
<213> Homo sapiens

<400> 5467  
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180  
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240  
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420  
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600

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 720  
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 960  
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 1260  
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&lt;210&gt; 5468

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5468

Met	Asp	Ala	Val	Leu	Glu	Pro	Phe	Pro	Ala	Asp	Arg	Leu	Phe	Pro	Gly
1			5					10					15		
Ser	Ser	Phe	Leu	Asp	Leu	Gly	Asp	Leu	Asn	Glu	Ser	Asp	Phe	Leu	Asn
		20					25					30			
Asn	Ala	His	Phe	Pro	Glu	His	Leu	Asp	His	Phe	Thr	Glu	Asn	Met	Glu
		35				40					45				
Asp	Phe	Ser	Asn	Asp	Leu	Phe	Ser	Ser	Phe	Phe	Asp	Asp	Pro	Val	Leu
	50				55				60						
Asp	Glu	Lys	Ser	Pro	Leu	Leu	Asp	Met	Glu	Leu	Asp	Ser	Pro	Thr	Pro
65				70				75					80		
Gly	Ile	Gln	Ala	Glu	His	Ser	Tyr	Ser	Leu	Ser	Gly	Asp	Ser	Ala	Pro
		85				90					95				
Gln	Ser	Pro	Leu	Val	Pro	Ile	Lys	Met	Glu	Asp	Thr	Thr	Gln	Asp	Ala
		100				105					110				
Glu	His	Gly	Ala	Trp	Ala	Leu	Gly	His	Lys	Leu	Cys	Ser	Ile	Met	Val
	115					120					125				
Lys	Gln	Glu	Gln	Ser	Pro	Glu	Leu	Pro	Val	Asp	Pro	Leu	Ala	Ala	Pro
	130				135				140						
Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Met	Ala	Thr	Thr	Pro	Leu	Leu	Gly
145				150				155					160		
Leu	Ser	Pro	Leu	Ser	Arg	Leu	Pro	Ile	Pro	His	Gln	Ala	Pro	Gly	Glu

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<210> 5469
<211> 1292
<212> DNA
<213> Homo sapiens
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<400> 5469
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120
acggagttta cccagggtgt gcagcatgac acggcctgta ccatcgcagc cacggccagc
180
gtgttcaagg agaagctggc tacggaaggc tcctcaggag caacagagaa gatgaagaaa
240
gggttatctg acttctcagg ggtgatctca gacacctttg ccccttcgcc agacaaaacc
300
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360
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420
gatgggcccc cggaattgtt tgacgcctgg ctttcccagt tctgcttga ggagaagaag
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540
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600
ttagagcagg agcaggcccc gagggacgcc ctgaagcagc gggcggaaca gagcatctct
660

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gaagagcccg gctgggagga ggaggaagag gagctcatgg gcatttcacc catatctcca  
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 aaagaggcaa aggttcctgt ggccaaaatt tctacattcc ctgaaggaga acctggcccc  
 780  
 cagagcccct gtgaagagaa tctggtgact tcagttgagc cccagcaga ggtgactcca  
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 1292

&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

Xaa	Ala	Ala	Ala	Ser	Thr	Glu	Gly	Glu	Asp	Val	Gly	Trp	Trp	Arg	Ser
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Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
		20						25					30		
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
		35					40					45			
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
	50					55					60				
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
	65				70				75					80	
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
			85						90					95	
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
		100						105					110		
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
		115					120					125			
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
		130				135					140				
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
	145			150					155					160	
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
		165						170						175	
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
		180						185					190		
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

195 200 205  
 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly  
 210 215 220  
 Trp Glu Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro  
 225 230 235 240  
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly  
 245 250 255  
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val  
 260 265 270  
 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser  
 275 280 285  
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val  
 290 295 300  
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu  
 305 310 315 320  
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile  
 325 330 335  
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro  
 340 345 350  
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp  
 355 360 365  
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser  
 370 375 380  
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu  
 385 390 395 400  
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Glu Val Gln Met Ala Leu  
 405 410 415  
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met  
 420 425

&lt;210&gt; 5471

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5471

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 ctggccccac tacgcggggc ccagagccag ggtgggggat gcagagaccg ggcgtgctgg  
 120  
 ttgccagggtg tggcgccat gtgtgcccgt gggcagagta cagagacaca agcttgtgtg  
 180  
 gacacgaatg ttagctatg tgcgagtga cacggagtgg tgagtgcagg gacccacagg  
 240  
 cggcctgcgt cgggtgcgcag ggcataatagg ggcgtgcacg cagtcttggg ggtgtgtgca  
 300  
 cagagccccc ggcacccgcg tgtgtgcaaa gacacaggaa cccgtctgcg tggcgctgtg  
 360  
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 420  
 gtgggggacg ccggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gacccacaga  
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 534

<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
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 Pro Arg Leu Pro Pro His Pro His Pro Asp Lys Arg Thr Leu Trp Ser  
           20                  25                  30  
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly  
           35                  40                  45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr  
           50                  55                  60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
   65                  70                  75                  80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
                   85                  90                  95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
                   100                  105                  110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
           115                  120                  125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
           130                  135                  140  
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala  
   145                  150                  155                  160  
 Ala

<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

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 cgctgccgcg ccccgcgccc ccaggaggcc gcaccctgcg ccaggggccc gagacagcaa  
   120  
 catcttcttg ggctgcagg agacctgaca gatgccaaaa caaaggaaca gttgggatcc  
   180  
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcatg  
   240  
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt  
   300  
 actggccaag gaaagcagtc ggagcaacca tacaatttgg tttggacact ttacaacatc  
   360  
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggcta tagcttattt  
   420  
 gtgtggacat ctccatacac ttgggtggact gatgcctgtt ttgcacactc gtcacttcca  
   480  
 gggcactttg gaacttgagg tgggagactg gaaggataat aggaggtacc ggatttttgc  
   540



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 600  
 tatcaccaat cctaaatcac tcctttatag ttgtggtgaa catgaaccac tagaaagact  
 660  
 tcttcactca acccacatta gattggtaac a  
 691

<210> 5474  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 5474  
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 Ser Asn His Thr Ile Trp Phe Gly His Phe Thr Thr Ser Thr Ile Leu  
 20 25 30  
 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr  
 35 40 45  
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His  
 50 55 60  
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys  
 65 70 75 80  
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser  
 85 90 95  
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn  
 100 105 110  
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg  
 115 120 125  
 Leu Leu His Ser Thr His Ile Arg Leu Val Thr  
 130 135

<210> 5475  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

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 120  
 aacaaccccc acgccagcta cagcgccctt ccgccagtga gtcctccga cagcgaggcc  
 180  
 cccgaggcca accccgccga cggcagtgac gctgacgagg acgatgagga ccggggggtc  
 240  
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac  
 300  
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgcctgcgct aaagatgtcg  
 360  
 gtctcgaaac gagcccgaaa ggctccagc gacctggatc aggccagcgt gtccccatcc  
 420  
 gaagaggaga actcggaag ctcatctgag tcggagaaga ccagcgacca ggacttcaca  
 480

cctgagaaga aagcagcggg ccgggcgcca cggagggggc ctctgggggg acggaaaaaa  
 540  
 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct  
 600  
 gagccggtgg ccatggcgcg gtcggcgt  
 628

<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
 Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr  
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 Asp Lys Cys Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe  
 20 25 30  
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser  
 35 40 45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
 50 55 60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65 70 75 80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu  
 85 90 95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
 100 105 110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
 115 120 125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn  
 130 135 140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145 150 155 160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
 165 170 175  
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys  
 180 185 190  
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser  
 195 200 205  
 Ala

<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

<400> 5477  
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 120  
 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggtccat  
 180

gggccccccc gcccatgggg ttgggctggt ccttatagtg cctacgtag tctgtgtgga  
 240  
 gcccttgccc agcgggggag aaaaagggtg cttctggtcc gtctgtataa aacatggccc  
 300  
 ctcacctgtc ggccccccac acagctggca ggctgggctg gcctctcacc cctggcctcc  
 360  
 cctggacccc tggtgggtc ctcaacttca ctctccgcac ttagtgcccc gccgccccca  
 420  
 gactcatcgt cgctcagccc ataggggaagc ccaggcctgg cccccagaga gtctccttcc  
 480  
 gagtctctct cgaagcccat gagctgggtca ctgttgccgt cgcttctctc ctcttctct  
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 600  
 ggtccttctg cgagggagtc ttcagtatcc actttgaccc cctcgcatct cacgggctgc  
 660  
 ggggtggcttt gcttccttcg gggcatcgtg accggtctca gcccgacgcg cctccggcct  
 720  
 gcggccg  
 727

&lt;210&gt; 5478

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5478

Ser	Ala	Ser	Val	Lys	Ala	Arg	Ser	Pro	Gly	Pro	Tyr	Gly	Pro	Pro	Arg
1				5					10					15	
Pro	Trp	Gly	Trp	Ala	Gly	Pro	Tyr	Ser	Ala	Tyr	Val	Ser	Leu	Cys	Gly
		20						25					30		
Ala	Pro	Gly	Gln	Arg	Gly	Arg	Lys	Arg	Trp	Leu	Leu	Val	Arg	Leu	Tyr
		35					40					45			
Lys	Thr	Trp	Pro	Leu	Thr	Cys	Arg	Pro	Pro	Thr	Gln	Leu	Ala	Gly	Trp
	50					55					60				
Ala	Gly	Leu	Ser	Pro	Leu	Ala	Ser	Pro	Gly	Pro	Leu	Ala	Gly	Ser	Ser
65				70					75					80	
Thr	Ser	Leu	Ser	Ala	Leu	Ser	Ala	Arg	Pro	Pro	Pro	Asp	Ser	Ser	Ser
				85				90						95	

Leu Ser Pro

&lt;210&gt; 5479

&lt;211&gt; 1386

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5479

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 120  
 atgcgagagg agcagctggc acgggaggcc gaggcccggg cggagcggga ggcggaggcc  
 180

cggaggcggg aggagcagga ggcacgagag aaggcgcagg ccgagcagga ggagcaggag  
 240  
 cggctgcaga agcagaaaga ggaggccgaa gctcggtcgc gggaagaggc ggagcggcag  
 300  
 cgtctggagc gggaaaagca cttccagcag caggagcaag agcggcaaga gcgcagaaag  
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 420  
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 720  
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 1260  
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 1320  
 tccagaaata aagaataatt ctgccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1380  
 aaaaaa  
 1386

&lt;210&gt; 5480

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5480

Ala	Gly	Thr	Thr	Asp	Arg	Glu	Glu	Ala	Thr	Arg	Leu	Leu	Ala	Glu	Lys
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Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Arg	Arg
		20					25					30			
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

35 40 45  
 Glu Ala Glu Ala Arg Ala Glu Arg Glu Ala Glu Ala Arg Arg Arg Glu  
 50 55 60  
 Glu Gln Glu Ala Arg Glu Lys Ala Gln Ala Glu Gln Glu Glu Gln Glu  
 65 70 75 80  
 Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu  
 85 90 95  
 Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu  
 100 105 110  
 Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg  
 115 120 125  
 Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys  
 130 135 140  
 Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu  
 145 150 155 160  
 Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro  
 165 170 175  
 Ile Pro Gln Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala  
 180 185 190  
 Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly  
 195 200 205  
 Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro  
 210 215 220  
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 225 230 235 240  
 Val Val Gln Ser Pro Gln Val Thr Glu Val Leu  
 245 250

<210> 5481  
 <211> 1513  
 <212> DNA  
 <213> Homo sapiens

<400> 5481  
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 120  
 ccggcagcca atcaggagag cgctcgctcc tgactcgacc ggcccacgct tcccgccagt  
 180  
 cccctaaccg tgaggctgcc gcgcgccggt cactgcgccg gggtagtggg cccagtgtt  
 240  
 gcgctctctg gccgttcctt acactttgct tcaggctcca gtgcaggggc gtagtgggat  
 300  
 atggccaact cgggctgcaa ggacgtcacg ggtccagatg aggagagttt tctgtacttt  
 360  
 gcctacggca gcaacctgct gacagagagg atccacctcc gaaaccctc ggcggcgttc  
 420  
 ttctgtgtgg ccgcctgca ggattttaag cttgactttg gcaattccca aggcaaaaca  
 480  
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 540  
 ggagtagtat ggaaaatgaa caaaagcaat ttaaattctc tggatgagca agaaggggtt  
 600

aaaagtggaa tgtatgttgt aatagaagtt aaagttgcaa ctcaagaagg aaaagaaata  
 660  
 acctgtcgaa gttatctgat gacaaattac gaaagtgtct ccccatcccc acagtataaa  
 720  
 aagattatctt gcatgggtgc aaaagaaaat ggtttgccgc tggagtatca agagaagtta  
 780  
 aaagcaatag aaccaaata ctatacagga aaggtctcag aagaaattga agacatcatc  
 840  
 aaaaaggggg aaacacaaac tctttagaac ataacagaat atatctaagg gtattctatg  
 900  
 tgctaataata aaatattttt aacacttgag aacagggatc tgggggatct ccacgtttga  
 960  
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&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

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Phe	Leu	Tyr	Phe	Ala	Tyr	Gly	Ser	Asn	Leu	Leu	Thr	Glu	Arg	Ile	His
			20					25					30		
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp
		35					40					45			
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50					55					60				
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65					70					75				80	
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
			85						90				95		
Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
			100					105					110		
Ala	Thr	Gln	Glu	Gly	Lys	Glu	Ile	Thr	Cys	Arg	Ser	Tyr	Leu	Met	Thr

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Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr Gln Glu Lys Leu		
145	150	155
Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val Ser Glu Glu Ile		
165	170	175
Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu		
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&lt;210&gt; 5483

&lt;211&gt; 1552

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5483

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1140

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&lt;210&gt; 5484

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5484

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 Ile Asp Ile Ile Asn Leu Asp Thr Phe Thr Tyr Ile Glu Ser Ala Ser  
 35 40 45  
 Glu Leu Arg Gly Gly Phe Asp Trp Ser Leu His Phe Gln Trp Glu Gln  
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 65 70 75 80  
 Arg Thr Pro Ile Ile Ala Gly Gly Leu Phe Val Ile Asp Lys Ala Trp  
 85 90 95  
 Phe Asp Tyr Leu Gly Lys Tyr Asp Met Asp Met Asp Ile Trp Gly Gly  
 100 105 110  
 Glu Asn Phe Glu Ile Ser Phe Arg Val Trp Met Cys Gly Gly Ser Leu  
 115 120 125  
 Glu Ile Val Pro Cys Ser Arg Val Gly His Val Phe Arg Lys Lys His  
 130 135 140  
 Pro Tyr Val Phe Pro Asp Gly Asn Ala Asn Thr Tyr Ile Lys Asn Thr  
 145 150 155 160  
 Lys Arg Thr Ala Glu Val Trp Met Asp Glu Tyr Lys Gln Tyr Tyr Tyr  
 165 170 175  
 Ala Ala Arg Pro Phe Ala Leu Glu Arg Pro Phe Gly Asn Val Glu Ser  
 180 185 190  
 Arg Leu Asp Leu Arg Lys Asn Leu Arg Cys Gln Ser Phe Lys Trp Tyr  
 195 200 205  
 Leu Glu Asn Ile Tyr Pro Glu Leu Ser Ile Pro Lys Glu Phe Ser Ile  
 210 215 220  
 Gln Lys Gly Asn Ile Arg Gln Arg Gln Lys Cys Leu Glu Ser Gln Arg  
 225 230 235 240  
 Gln Asn Asn Gln Glu Thr Pro Asn Leu Lys Leu Ser Pro Cys Ala Lys  
 245 250 255  
 Val Lys Gly Glu Asp Ala Lys Ser Gln Val Trp Ala Phe Thr Tyr Thr



	260		265		270
Gln Lys Ile	Leu Gln Glu Glu	Leu Cys Leu Ser Val	Ile Thr Leu Phe		
275		280	285		
Pro Gly Ala	Pro Val Val Leu Val	Leu Cys Lys Asn Gly	Asp Asp Arg		
290		295	300		
Gln Gln Trp	Thr Lys Thr Gly Ser	His Ile Glu His	Ile Ala Ser His		
305		310	315		320
Leu Cys Leu	Asp Thr Asp Met Phe	Gly Asp Gly Thr	Glu Asn Gly Lys		
	325		330		335
Glu Ile Val	Val Asn Pro Cys Glu	Ser Ser Leu Met	Ser Gln His Trp		
	340	345	350		
Asp Met Val	Ser Ser				
355					

&lt;210&gt; 5485

&lt;211&gt; 1549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5485

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 1020

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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
			35				40					45			
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
			50				55				60				
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70				75				80		
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
			85					90					95		
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
			100					105					110		
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
			115				120					125			
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
			130				135					140			
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
145					150				155					160	
Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
			165					170					175		
Glu	Leu	Leu	Glu	Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr
			180					185					190		
Thr	Asn	Ile	Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys
			195				200					205			
Glu	Thr	Ser	Arg	Gly	Ile	Gly	Val	Ser	Ser	Asn	Gly	Ala	Lys	Pro	Glu
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Leu	Ser	Glu	Lys	Val	Thr	Glu	Asp	Gly	Thr	Arg	Asn	Pro	Asn	Glu	Lys

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720
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1140

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&lt;210&gt; 5488

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5488

Leu	Gly	Leu	Gln	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro	Lys	Ala
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Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Arg	Thr	Glu
			20					25					30		
Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met	Gly	Ala
			35				40					45			
Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met	Lys	Arg
	50				55						60				
Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu	Ala	Asn
65				70						75				80	
Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu	Leu	His	Asp	Ala	Val	Met	Asn
			85					90					95		
Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu	Gln	Met	Tyr	Asn	Ser	Gln	His
		100						105					110		
Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr	Val	Trp	Arg	Thr	Glu	Gly	Leu
		115					120					125			
Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Ile	Pro
	130					135					140				
Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	Gln	Val
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Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln	Ser	His	Ile	Ile	Ser	Gly	Gly
			165					170					175		
Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp	Val	Cys
		180					185						190		
Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Asn	Val	Ala	Leu	Ser	Leu	Ala	Asn
		195				200						205			
Ile	Ser	Gly	Arg	Leu	Ser	Gly	Met	Ala	Asn	Ala	Phe	Arg	Thr	Val	Tyr

210		215		220	
Gln Leu Asn Gly Leu Ala Gly Tyr Phe Lys Gly Ile Gln Ala Arg Val					
225		230		235	240
Ile Tyr Gln Met Pro Ser Thr Ala Ile Ser Trp Ser Val Tyr Glu Phe					
	245		250		255
Phe Lys Tyr Phe Leu Thr Lys Arg Gln Leu Glu Asn Arg Ala Pro Tyr					
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<210> 5489  
 <211> 1600  
 <212> DNA  
 <213> Homo sapiens

<400> 5489  
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&lt;210&gt; 5490

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5490

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 Leu Glu Lys Ile Leu Gln Arg Gln Phe Ser Ser Ser Asn Ser Pro Arg  
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 Gly Ile Ile Phe Thr Arg Thr Arg Gln Ser Ala His Ser Leu Leu Leu  
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 Trp Leu Gln Gln Gln Gln Gly Leu Gln Thr Val Asp Ile Arg Ala Gln  
 65 70 75 80  
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 85 90 95  
 Arg Asp Gln Gln Glu Val Ile Gln Lys Phe Gln Asp Gly Thr Leu Asn  
 100 105 110  
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 115 120 125  
 Cys Asn Val Val Val Arg Tyr Gly Leu Leu Thr Asn Glu Ile Ser Met  
 130 135 140  
 Val Gln Ala Arg Gly Arg Ala Arg Ala Asp Gln Ser Val Tyr Ala Phe  
 145 150 155 160  
 Val Ala Thr Glu Gly Ser Arg Glu Leu Lys Arg Glu Leu Ile Asn Glu  
 165 170 175  
 Ala Leu Glu Thr Leu Met Glu Gln Ala Val Ala Ala Val Gln Lys Met  
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 195 200 205  
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 210 215 220  
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		325			330								335		
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Asp	Leu	Ser	Leu	Asp											
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&lt;210&gt; 5491

&lt;211&gt; 5555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5491

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